MARINE RECORD

ESTABLISHED 1878.

VOL. XIX. NO. 42. CLEVELAND—OCTOBER 15, 1896—CHICAGO. $2 PER YEAR. 10c. SINGLE COPY

THE WORLD'S MERCHANT TONNAGE.

The new edition of the "Repertoire General de la Marine Marchande," published by the directors of the Bureau Veritas, contains the usual summary of the steamships belonging to the different maritime nations measuring 100 tons gross and upwards, as also the list of sailing vessels measuring 50 tons net and upwards, and a list of the smaller vessels which are classed in the Veritas Register. Taking the steam tonnage first, the following table shows the number of steamers of over 100 tons, and their collective gross tonnage belonging to the sixteen principal maritime nations, whose aggregate gross steam tonnage surpasses 100,000 tons:

	Steamers. 1896.	Gross Tons. 1896.	Sail. 1896.	Net Tons. 1896.
Great Britain and Colonies	5,690	10,245,577	8,726	3,267,625
Germany	831	1,360,472	1,096	566,973
France	532	933,244	1,425	252,940
United States	477	761,707	3,881	1,358,467
Spain	365	519,315	1,115	167,143
Norway	551	494,612	2,801	1,176,174
Italy	222	344,523	1,692	472,002
Holland	204	320,794	642	139,649
Japan	267	313,563	.....	.....
Russia	314	277,392	1,753	363,046
Austria-Hungary	156	254,269	.....	.....
Denmark	265	248,773	795	149,843
Sweden	427	233,777	1,444	285,665
Greece	107	144,975	1,059	246,196
Brazil	314	139,305	.....	.....
Belgium	66	139,300	.....	.....
Turkey	.....	.....	1,247	241,096

The above figures show that the tonnage of the steam mercantile fleets of every nation, excepting Holland, has increased since last year. Besides the steam tonnage set forth in the above table, there are 2,667 small steamers (below 100 tons), measuring altogether 415,069 tons gross. The "Repertoire" gives the following particulars respecting some of the greatest steam navigation companies: The British India Steam Navigation Company owns 102 steamers (265,995 tons); Peninsular and Oriental Company, 58 steamers (258,937 tons); Messageries Maritimes, 62 packet boats (223,469 tons); North German Lloyd, 67 steamers (218,116 tons); Hamburg-American Packet Company, 52 steamers (170,725 tons); Compagnie Generale Transatlantique, 65 steamers (170,296 tons); Austrian Lloyd, 76 steamers (146,559 tons); Compania Transatlantica, 36 steamers (115,352 tons); Navigazione Generale Italiana, 100 steamers (172,769 tons), etc. The number of existing steamers whose measurement is between 5,000 and 6,000 tons is 131; between 6,000 and 8,000 tons, 59; those over 8,000 tons, 25, and of these latter eight are of more than 10,000 tons, viz., the Campania, Friedrich der Grosse, Georgic, Lucania, New York, Paris, St. Louis, and St. Paul. On comparing these statistics with those of previous years, it will be seen that the number of large steamers is increasing. The general total of the steamers of over 100 tons is given as 11,155, representing 17,089,596 tons gross, and 10,761,025 tons net. In the sailing vessel section of the book, the general total of existing sailers of over 50 tons is put down as 29,348, with a collective net measurement of 9,136,569 tons. This sailing tonnage is divided among the principal maritime nations—thirteen nations possessing sailing tonnage of over 100,000 tons. The total is made up by the smaller fleets of the other nations.

ARCTIC EXPLORATIONS.

Speaking of the achievements of the brave Nansen in search of the North Pole, the Army and Navy Gazette says: "No man who knows the long story of Arctic and Antarctic journeyings—who remembers the deeds of the early explorers, of men like Davis, Frobisher, Hudson and Baffin, of Willoughby, Borough, Pet, Barents and the brave Dutchmen who braved the perils of the North-east Passage, who knows the achievements of Franklin, Ross, Parry and their companions, and of the men who have voyaged toward the Southern Pole—will remain unmoved by the success of Nansen. The moment seems opportune, indeed, for the British societies to move in the matter of further exploration. The North Pole, at length, seems almost within reach, though brave men inured to hardship and danger will be needed to reach it. It is, perhaps, in Antarctic regions that still greater things await the intrepid explorer. The expedition of Ross along the edge of the southern ice in 1893, but touched the fringe of the problem, and a vast field lies yet unexplored. The Belgian expedition, which is but upon a small scale, has been deferred for a year, but we hope that ere long a well equipped party will be sent out to attempt the solution of the scientific problems that call for solution in the Antarctic, and to rival the deeds of Nansen, by extending the field of human knowledge in regard to the unknown regions that surround the Southern Pole.

CLAIMS FOR LOSS OF LIFE.

The United States Circuit Court of Appeals, at Cincinnati, O., has just allowed a motion to fix a hearing for the arguments of counsel in the case against the D. & C. steamer, City of Mackinac, for the sinking of the tug Washburn and the drowning of Engineer Robinson, and John Hurley, of Detroit, in the Detroit River three years ago. The case comes up for hearing November 9, and the clause to be debated is the contributory negligence and therefore inability of both the boats in question, for damages to be paid the relatives of the deceased, one of whom was the owner of the tugboat.

THE HOLLAND TORPEDO BOAT.

The Holland submarine torpedo-boat, built at the Columbia Iron Works, Baltimore, is nearing completion. Regarding her speed, it is stated that when running light the vessel will displace 116 tons of water, with the hood and upper part of the hull just above water. When running level with the water, at 135 tons displacement, only the smokestack and upper part of the hood will be seen. The vessel will displace 136 tons when completely submerged. The motive power consists of a boiler heated by petroleum, three triple-expansion engines, each turning a screw, three dynamos mounted on the screw shafts, and the accumulators. With the 1,800 horse-power in her engines the speed is expected to be 15 knots when light, 14 knots when level with the water, and 8 to 9 knots when submerged.

IT MEANS CHEAPER TRANSPORTATION.

The long expected deeper draft from Lake Superior to the lower lakes is at last an accomplished fact. One by one during the past two years the barriers that interfered with a 16½-foot draft have been removed until the last one remaining was the rocky bottom at Encampment Island in the Sault River about 20 miles below the locks. For three years the contractors have been at work cutting a channel 80 feet wide and 1,200 feet long, and now the dredges have been taken away and the announcement made that boats could load to a depth of 16 feet as against an average heretofore of 14 to 14 feet 6 inches. It is not expected that the larger class of steamers will load to the full depth until the channel has been tested, but it is a safe proposition to make that the carrying capacity out of Duluth will be increased 20 to 25 per cent, and this means to every farmer in the northwest at least ½ cent per bushel added to the value of every bushel of grain he raises and a corresponding increase of earnings for the large carriers.

A GERMAN SHIPBUILDING INDUSTRY.

An interesting article appears in a German contemporary giving particulars of the Vulcan Shipbuilding Works at Stettin. The works, it says, comprising shipyard, floating docks, marine engineering, and locomotive engineering departments, are on the left bank of the Oder, at Bredow, about two miles below Stettin. Altogether an area of over 60 acres is occupied by the works, which came into being in 1857, in which year Messrs. Fruchtenicht & Brook began iron shipbuilding and engineering on a small scale on the present site. On the formation of the company in 1857, locomotive work was added to that of marine engineering and shipbuilding. In 1859 the first locomotive engine was delivered, and in 1861 the company's first marine engine of large size was completed, this being for the ironclad frigate Hansa. The company's first order from the German government for a warship of any consequence was received for the Preussen in 1869. Up till now the number of vessels of all kinds built and building is 238, and the number of separate commissions, including both marine and locomotive engines, is 1,100. Comprised in this formidable output are 17 large warships for the German navy, battleships, sloops of war, cruisers, despatch boats, etc., and 6 large-sized men-of-war for the Chinese navy, 10 torpedo boats for the German navy, 6 for the Greek, and two for the Russian navies. Among the many vessels built for the merchant service a large number consist of freight and passenger steamers for ocean traffic, and not a few are fast Atlantic passenger and cargo liners. The average number of workmen employed at the Vulcan works is 4,500. With the exception of plates, angles, and other such constructive materials, and of shafts and other heavy forgings, all parts, both of hull and engines, are produced in the establishment. The boiler-making plant is especially fine, the drilling and riveting appliances by hydraulic power being of the most capable kind.

AIDS TO NAVIGATION.

Secretary C. H. Keep of the Lake Carriers' Association has forwarded to Admiral Walker, chairman of the United States Light-House Board, one of the strongest documents that has ever been prepared on the subject of aids to navigation on the lakes. Executive officers of the association are determined to leave nothing undone on their part to assist in immediate action being taken upon the opening of Congress in December so that the requirements may be complied with at an early date. This is why the subject is taken up thus early with the Light-House Board. The full list of new aids to navigation, for which appropriations are to be requested of Congress, is submitted to the board and every item is accompanied by an explanation of advantages that would be derived from it. In his letter to Admiral Walker, Mr. Keep makes short and effective reference to the importance of lake commerce, which, however, is now fully recognized at Washington.

HARBOR LINES DEFINED AT ERIE.

Major Thomas W. Symonds, Corps of Engineers, U. S. A., representing the government met with the mayor the city and railroad authorities at Erie, Pa., on Monday last to agree upon defining the harbor line. It was finally agreed that Major Symonds should recommend to the government a line beginning about 500 feet north of the Pittsburg dock and parallel the city front to the sunken Sunberry pier, and at no less depth than 20 feet. This makes a concession to the city of 600 feet along its entire front, which may be used for piers, wharfs, docks or other purposes.

NEWS AROUND THE LAKES.

BUFFALO.

LARGE GRAIN CARRIERS—COAL CHARTERS SCARCE—FRISKY SHIPMASTERS.

Special Correspondence to The Marine Record.

Vessels in Buffalo dry-dock at present include the St. Louis, Monteagle and Katahdin. The Katahdin went on the bottom in going to Tonawanda and smashed three or four plates. Tugmen say she got out of the channel.

Some of the larger craft have been loading down further this season than ever before. The steamer Pabst, for instance, has carried immense loads of coal from here this year. On one trip she loaded 3,111 net tons and drew 17 feet, 3 inches when she left here. This is probably the largest load she ever carried.

It was a week for small accidents in this vicinity, especially on the Niagara River, which is more than usually dangerous just now on account of the operations at Strawberry Island. The government is drilling away the reef, but has not cleaned up the loose rock as it goes and there is now not more than 12 feet of safe water in the channel there at present.

The Niagara Falls Paper Company is through receiving pulp wood for the season, having put in 30,000 cords. This is getting to be a great industry and has given business to a considerable fleet. The vessels appear to like the business, for there is no loss from wetting the wood and it is unloaded by throwing it overboard when it is taken inside of the boom at the mill. The last lot came down towards the end of last week.

There seems to be no hope for the coal trade this fall. At one time it looked as though there was a revival not far away, but it turned out to be a mistake. The shipments last week were much the smallest they have been any week of the season and there is no promise of an improvement. The price of coal is one thing in the way. But for that there would have been much more disposed of than is now possible. Shipments are considerably in advance of last season to date for all the falling off, however, and may keep ahead.

The big grain carriers came down upon us last week and gave it a decidedly notable character, taken altogether. Starting off with about 2,000,000 bushels afloat there were afterwards over 500.000 bushels here at one time on board of the three big fellows, the Queen City, Maricopa and Victory. Including flour, the week's receipts were a trifle more than 7,000,000 bushels of grain and flaxseed. Then there was a spurt in lumber late in the week, Saturday's receipts being over 8,000,000 feet, Tonawanda boasting 10,000,000 feet about the same time. There is an effort to advance the freight rate on lumber, especially from Green Bay points, as there is considerable to come from there yet this fall.

The schooner Ishpeming does not appear to have suffered very severely from her shaking up on Lake Erie last week. On being unloaded it was found that she had very little wet grain and she does not appear to need any repairs. It is a fact that the canal schooners, of which she is a somewhat overgrown specimen, were not built by any botch workmen. They do go to the bottom of the lake one after another, to be sure, but the reason for their foundering, as a great part of them do is that they are loaded too heavily, and being small and not usually being calculated to rid themselves of a sea quickly they go down before they have a chance to shake the water off. They have been well sailed and seldom are lost by getting ashore.

Capt. Griffin of the Parnell was down again last week. There was a report that he was going to bring his boat out again, but he denies it and says she is laid up in Chicago for good. Another story was that the Chicago shippers wouldn't give him a load because he flew a Bryan flag, which appears to be about the most lonesome business on the lakes this fall and beats tying up in September out of sight, but the Captain shows an offer of 1⅝ cents on flaxseed that he had refused, when it was an eighth above the market.

Vessel owners are complaining of grain shortages again. It appears that some of the boats must go up light for grain, but if they have to pay for a smart shortage every time they will have very little money left. Here is a sample: The steamer America has been short over one hundred bushels on each of her last three cargoes; her last trip she was 109 bushels of corn short, and once the shortage was over two hundred bushels. The Brazil was 101 bushels short last week. These are the very worst shortages, as they can seldom be rectified. Any captain prefers a shortage of 500 bushels, as it is usually found.

There ought to be something done towards looking after the average lake captain this winter. He is having it too easy and may give us trouble. Usually he does not tie up till he has smelled the Christmas dinner pretty strong and has frozen solid a few times on the pilot house. On this account it is early spring again before he thaws out all over and he goes into commission early in April with some of the cramps of last December still in his legs, and has for that reason been comparatively harmless all winter. But it is different now. He is taking in all of the fall campaign and is in line for election and Thanksgiving, not to mention any amount of small affairs of his own getting up. He will certainly get too frisky before April. It is reported from salt water that the ocean skipper is getting to be a roaring bicyclist and does up every port he strikes on his wheel, but the lake captain is not going to come down to bicycle riding-schools for exercise this winter. Wouldn't it be a good idea to turn some of the liveliest ones over to some such concern as the Society of Charities and Correction? There need be no demonstration of course unless the subject shows signs of breaking out all over. There is not much prospect, though, of the line captains getting in early. Package freight is not remarkably plenty, but it is keeping up fairly well and the liners are getting all the grain they want to fill out their cargoes with. Grain freights are good pay now, when they supplement package freight at the present good rates. That is to say the east-bound rates are good. They have not been remarkable the other way, as it was found to be impossible to establish a rate west-bound that would hold.

The cutting of the fuel coal rate ten cents here last week is likely to stir up the business all along the line, though so far nothing appears to have been done elsewhere to meet the reduction. In reality it is claimed that this was necessary to get the fair share of business here.

JOHN CHAMBERLIN.

CHICAGO.

SHIPYARD WORK—GENERAL PORT NEWS AND WEEKLY CHARTERS.

Special Correspondence to The Marine Record.

Capt. Thomas Fitzpatrick, of Cleveland, was in Chicago on Tuesday.

The steamer Madagascar will go into dock this week for repairs to her stern.

Capt. Chas. Wallace has been appointed master of the O. S. Richardson Co.'s tug A. B. Ward, vice-Capt. Edward Evans resigned.

F. W. Morgan's steel steam yacht Pathfinder went up the north branch of Chicago River to Fullerton avenue on Monday to be put in winter quarters.

A question having arisen as to the lowest freights paid for coal from Buffalo to Chicago in the year 1876, readers are requested to give information on the subject.

The Chicago Ship Building Co. are doing some calking and repairs on the steamer Phoenix and schooner Porter and on one of the car ferries of the Wisconsin & Michigan Car Ferry Co.

Carr & Blair chartered the steamer Oglebay for corn to Buffalo at 1¾ cents; the steamers George T. Hope and Sauber for corn to Buffalo at 2 cents; the steamer Progress for wheat to Buffalo at 2⅛ cents.

The steamer Charles Stewart Parnell, which had been laid up, has again gone into commission, the 2-cent freights on corn having tempted Capt. P. Griffin to try his luck once more this season.

Capt. Edward Evans, for several years master of the late S. K. Martin's lumber carrying steamer M. C. Neff, has been appointed to the command of the Wisconsin & Michigan Car Ferry Co.'s new steel tug Fischer.

The Independent Tug Line had one of the Dodge Dredging Co.'s scows in their floating dry-dock for recalking all over; one of Fitzsimmons & Connells' pile drivers is in for recalking; the steamer Minnie B. will go in for recalking and fixing stern bearings.

J. A. Calbick & Co. chartered the steamer Toltec and consort Miztec for corn to Prescott at 3¼ cents, free out; the barge Middlesex for salt, Ludington to Toledo; steamer Normandie for lumber, Duluth to Chicago, at $2 per thousand; the steamer Adelle Shores for corn, Chicago to Buffalo, at 2 cents.

Captain Peter Peterson stripped his schooner, the Winnie Wing, on her arrival in port Tuesday. He has had enough of nine-shilling lumber freights from Menominee to Chicago. He prefers staying on shore and enjoying himself to running risks on the lake and getting nothing for so doing.

The Graham & Morton Transportation Co.'s steamer City of Louisville when going out early Friday morning collided with the schooner E. Scoville, laying at dock just below the Illinois Central railroad bridge, on the north side of the river. The schooner's jibboom, port cathead, guys, forestay and head gear was carried away.

The Lehigh Valley Line steamer Tacoma received considerable damage Tuesday morning when coming down the north branch of Chicago River in tow of the Independent Line tug William Dickinson. When the steamer was about two-thirds the draw of the Indiana street bridge was swung on to her and tore her boiler house and some stanchions. The bridge was also disabled.

J. J. Rardon & Co. chartered the steamer Aurora and consort Aurania for corn to Buffalo, the Aurania loaded 186,500 bushels; the steamer Arizona and consorts Plymouth and Scotia for corn to Prescott at 3¼ cents; steamer City of Buffalo barley to Buffalo 1⅝ cents; steamer Mecosta, barge Ashland and steamers Phoenix and Yuma for corn to Buffalo at 2 cents.

H. W. Cook & Co. chartered the steamer John H. Glidden and consort Aberdeen for barley to Chicago at 1⅝ cents; steamer Onoko barley to Buffalo at 1½ cents; steamer New Orleans oats to Port Huron at 1⅜ cents; steamer Shenandoah and consorts Armenia and Algeria corn to Buffalo at 1¾ cents; steamers City of Glasgow and Fred Pabst corn to Buffalo at 2 cents.

At Miller Bros.'s shipyard the steel steam yacht Pathfinder was in dock for scraping and painting bottom and repairs to stern and shoe; the fireboat Yosemite for stopping leak, refastening blades on wheel and repairs to stern bearing; the steamer City of Holland for searching bottom and stopping leak; the schooner E. Scoville received a new jibboom and cat-head.

WILLIAMS.

CLEVELAND.

THE CHISHOLM NOT TO BLAME—GENERAL PORT GOSSIP.

Special Correspondence to The Marine Record.

Capt. Alex. McDougall visited this city during the week and called on his vessel-owning friends.

Capt. Wm. McGarvey has been appointed master of the steamer Specular, owned by the Republic Iron Co.

If freights will only keep jogging upwards as they now look, and with the increased draft in the "Soo" River, allowing from ten to twenty per cent more cargo being carried, there may still be a jack-pot in the fall business for some of the owners to open and win.

Capt. John W. Moore, John Bartow, John W. Warner, John Ashley, William Mannel, James Walsh, W. H. Becker and F. A. Bates enjoyed a fishing trip the early part of the week in Captain Moore's yacht, the Maryette. This is the best way to enjoy a few days' vacation.

Mr. C. B. Calder, now with the Detroit Dry Dock Co., as superintendent of their engine works, was in the city on Sunday on business for his firm. Mr. Calder gained a host of friends during his sojourn here as shore engineer of the Mutual and Menominee lines of steamers, and Charles met with a good many hearty hand-shakes while on his too brief visit.

The whaleback model may have been a dream of Capt. McDougall's but if so, it fructified all right and the production of this singular tonnage seems to agree with the manager of the American Steel Barge Co., as nothing else could. The Captain has not been a very frequent visitor to Cleveland recently and his vigorous, hearty manner, coupled with the vitality inherited from his hardy Scotch ancestry puts to the blush some of his puny-looking and acting associates in the vessel business.

The steamer Isabella J. Boyce, Capt. Simon O'Day, has moved from Lake Michigan to the lower lake trade. She left this port on Monday for Ogdensburg. The Boyce is chartered by the Illinois Steel Co. to Nov. 30, and has made several trips lately to Canadian ports, including Hamilton and Prescott. There will always be work for medium sized tonnage in trading to the minor ports, but the biggest boats will surely take the bulk of bulk cargoes; nor can the smaller boats go side by side with them at the same rate of freight.

The Chapin iron ore mine, of which Mr. M. A. Hanna is now the principal owner, has for many years been considered handsome paying property and almost like a gold mine to a good many of its owners. The Chapin output heads the list this year with over half a million tons shipped and a stock pile of 100,000 of valuable ore mined ready to forward. The Dickinson county mines, of which the Chapin is chief, produced nearly two million tons this season, and the Illinois Steel Co takes another 10,000 ton order from that district this week.

Lieut. George H. Stafford, U. S. N., in charge of the branch hydrographic office at this port, is a fair type of the courteous gentlemen which the U. S. raises under the stars and stripes on board ship. We were all sorry enough to lose Ensign Cole, but it would, no doubt, please him to know that the marine community is likely to miss his successor in as great a degree as they missed him upon his change to service afloat. Lieut. Stafford is quite a young man, with enthusiasm enough to share his technical knowledge and experience with all callers at the hydrographic office, and it is to be hoped that masters will avail themselves during the winter of the facilities for information offered in the branch hydrographic office, top floor, of the Arcade building.

The managing owner of the William Chisholm, Capt. W. C. Richardson, states that no ore was jettisoned when that vessel was recently sunk in De roit River. Capt. Geo. McLeod, the underwriters' agent from Buffalo, was also on the spot and makes a similar statement. Capt. Call, master of the steamer, clears up the question by stating that the City of Rome struck to the north and eastward of the point where the Chisholm was sunk, and it is well known that a shoal spot 400 feet long with less than sixteen feet of water over it is to be found in that locality. It is likely the Robert Mills found the same spot. In any case the Chisholm is exonerated from causing any delay to the above named boats as no jettison took place. This is another instance of how false statemen s can be telegraphed around the lakes and receive wide circulation.

SWAIN.

DETROIT.

THE FREIGHT SPLURGE—THE NEW GRAHAM & MORTON BOAT—PORT NOTES.

Special Correspondence to The Marine Record.

The D. & C. war against the new Grummond-Cleveland Line has now reached a point where there is no money, even in freights.

The Graham & Morton Transportation Co. are asking bids for a new side-wheel steamer for their route, and the Detroit Dry Dock Co. are bidding for her. On inquiry, however, your correspondent was informed ne-

gotiations were not as nearly completed as was supposed, as they had assumed no contract shape as yet, nor would they probably (in case the Detroit Dry Dock Co. were successful) for some days yet. Until something definite was arrived at they would say nothing on the subject.

Two steamers, the City of Rome and the Robert Mills, have struck on some obstruction in Detroit River, and as it lies in a very exposed place, directly in the way of many passing vessels, it is very necessary that it be buoyed or removed.

The tug J. L. Miner has been engaged for some days in laying cables for the Western Union Telegraph Co. One has been placed across at 12th street, one at 18th street, and one at Joseph Campeau avenue has been taken up and will be relaid.

Captain Baker, in speaking about the Sumatra, said: "I made a bid on her, but as a heavy sea was running I could only stand on the pier at Milwaukee and look out to where the vessel's spars were visible above the water, and I only made an approximate guess. The truth is, such a wreck is too far away from my base of operations, and I do not care to go so far."

John Quinn, who a few days since announced he had secured the contract for raising the cargo of the lost schooner Sumatra, has sub-let the contract to Henry McMorran et al, who will work on the wreck with the steamer Mary Groh. The McMorran Wrecking Co. were interested in the Sumatra, and intended looking after their interests in the vessel anyway.

The rise in freights will not affect the Adams fleet any. With the exception of the Tom Adams, all their boats are laid up, and will remain so. Mr. Thomas Adams grew very much discouraged over the continued depression in freight rates, and frequently said nothing but restored confidence and a change in policy would bring back an improved condition of affairs.

The Oceanica left her dock on Saturday afternoon last, and is now having some repairs to her upper works completed outside. It will be but a few days before she is completed, and it is reported she will reload her cargo and take it to her destination. Also that she will remain in the Lehigh Valley Line, the underwriters having made the company an offer which they accepted.

Another vessel owner said: "The organized shippers at Chicago simply have things in their own hands to suit themselves. They will raise prices when owners of vessels are going to lay up in despair, just enough to tempt them to another bite, and so keep them nibbling. And vessel men are so disorganized, and I fear hopelessly so, that they take anything offered them, and are glad or sorry, helplessly, as the case may be."

Again W. A. Livingstone has expressed an opinion which, to superficial observers, may seem paradoxical, but which those interested vitally in marine matters will appreciate. To your correspondent he said: "I am sorry to see freights rising at this time. There are very many boats temporarily idle, with only their lines holding them, which are waiting for something to turn up to let them out again this fall. After the first few days of November the insurance on many boats will run out, and they will lay up for winter, unless running and making something. Then under those conditions there will be good freights, and something for boats to earn."

McC.

OBITUARY.

CAPTAIN W. M. BIE.

William M. Bie, for a number years first mate on the Goodrich steamer Muskegon, died at Annapee, Wis., last week. The funeral was conducted from the Catholic Church there under the auspices of the Catholic Knights and the Catholic Forresters. Capt. Bie had been sailing on the lakes for about thirty years and for the past few years was an officer on the City of Ludington and the Muskegon of the Goodrich Transportation Co.

WEEKLY FREIGHT REPORT.

The upward tendency evinced during the past two weeks developed this week and tonnage has been fairly active on improved freights. Chicago corn rate advanced steadily from 1½ cents to 2 cents and all spot tonnage was taken at the latter figure with a firm market remaining. Corn to Kingston 3¼ cents. Duluth grain charters are quiet, if not dull, though inclined to strengthen—barometer like—an indication of a raise at one point raises or stiffens freights at all lake ports, and this feature is becoming more noticeable than ever before, 2½ on wheat and 2¼ cents on barley are the latest quotations from the head of the lakes and these figures will have to go up before much chartering is done. Milwaukee shipped to Buffalo an 85,000 bushel consignment of corn at a 2-cent rate. Toledo to Buffalo 1½ cents on wheat, an advance of ¼ cent on last week's figures.

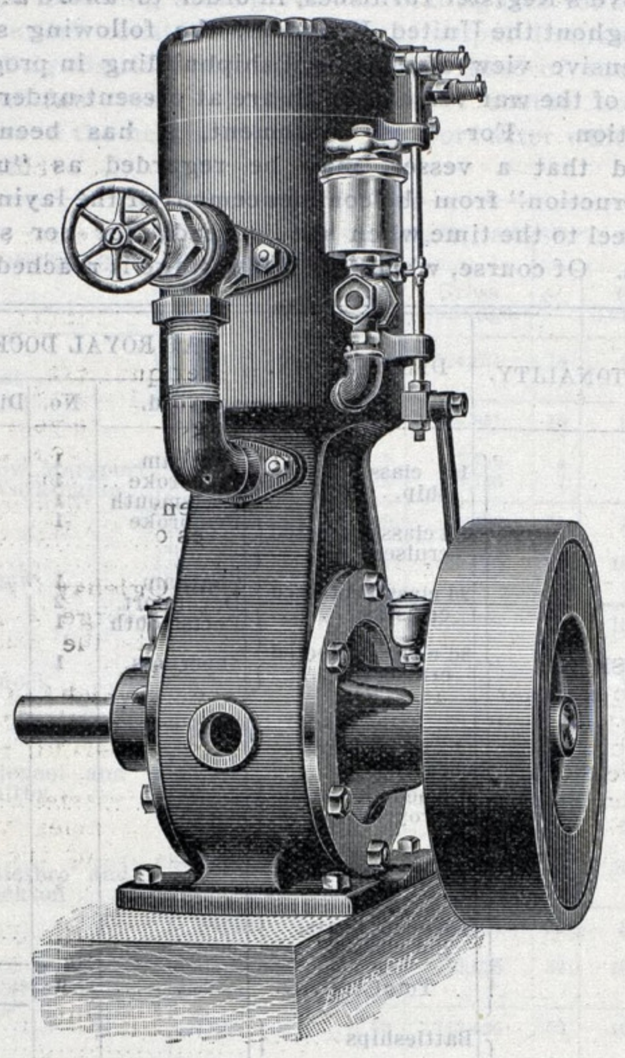
Coal—Buffalo to Duluth, Chicago or Milwaukee, 20 cents, Bay City, 30 cents, Racine, 40 cents. Cleveland shipments dull and unchanged, with plenty of tonnage offering.

Ore—There is a firmer freight market in ore and 50 cents on Escanaba, 60 cents from Marquette was freely offered with no takers and as the going Chicago grain rate figures out to 80 cents on ore there is no rush to carry ore although the rates have now gone up to to 60 cenes to Escanaba and 75 cents Marquette to Buffalo with an opening for 65 cents from Escanaba, and it is likely that 70 cents will soon be the going rate from that port within a few days.

A NEW NAPHTHA ENGINE.

The engine herewith illustrated has just been placed upon the market by the firm of Charles P. Willard & Co., 1975 Canal st., Chicago. The manufacturers state that the engine presents some entirely new features which render it especially desirable as a motive power for small boats and launches.

Heretofore, we believe, all naphtha launches have required the presence of a flame burning in the generator while it was in operation, to vaporize the naphtha, and also required the presence of several gallons of naphtha in the boat at all times. By the entirely different system upon which this engine operates there is no fire in the boat whatever.



An electric spark from a sealed battery ignites the gas inside a closed iron cylinder and furnishes the motive power. Only a small quantity of naphtha need ever be carried in the boat at one time, and this may be of the very lowest specific gravity, consequently the safest and least inflammable grade manufactured.

These engines are sold complete ready to put into the boat, or boats complete, and ready for operation when furnished by the manufacturers.

DEATH OF A WELL KNOWN SHIP OWNER.

Capt. Henry Flinn, of the firm of Messrs. Flinn, Main & Montgomery, Liverpool shipowners, died at New Brighton two weeks ago, from failure of the heart's action. He was 75 years of age. For about 30 years the deceased gentleman occupied the position of master in the mercantile marine, and in 1870 founded the firm which bears his name, and which undertook the management of the Dominion Line of steamers. His nephew, Mr. Richard Flinn is well known in Liverpool vessel owning circles.

FLOTSAM, JETSAM AND LAGAN.

The body of Peter Anderson, a late member of the crew of the schooner Sumatra, which foundered off Milwaukee recently, has been picked up on the beach near to where the schooner sunk.

The steamer Robert Fulton, built by the Detroit Dry-Dock Co., has been turned over to the Bessemer Steamship Co., but will not go into service till next spring. She will be towed to Wyandotte and winter there.

Capt. Frank Ocha, of the life-saving crew at Ottawa Point, has mysteriously disappeared from East Tawas. He parted from his wife Monday afternoon at the dock, for the avowed purpose of returning in his sail boat to the Point. He had $239, three months' wages, with him and next day his boat was found tied to the dock with both sails set. Foul play is feared as it was known he carried a sum of money. Ocha has two children.

The Union Liner Ramapo on her first round trip carried 3,934 tons of freight on 16 feet draft. This is big carrying for her size. She handles nicely and makes 12½ miles an hour, loaded. Capt. Robinson is much pleased with her.

The Lehigh Valley liner, Oceanica sunk through collision in Detroit River and condemned as a constructive total loss, has, after receiving temporary repairs been accepted again by her former owners. Final repairs will be made on the boat during the winter.

W. A. Livingtone, of Detroit, says the report published, saying the new cut at Sailor's Encampment had 16½ feet of water, was wrong. The cut was over 18 feet deep, but as boats drawing that much could not get into Buffalo, a part of the depth was unavailable.

The barge Morning Star has been libeled on a wages claim amounting to $135 by James Scanes; other libels have also been filed to the extent of $600 and Judge Ricks has entered a decree for the sale of the craft at Toledo, Oct. 25.

Arrangements have been made for the enlargement of the Wheeling & Lake Erie railroad docks at Huron. The company has decided to build 1,200 feet more dock and equip the addition with Brown hoists, which, with other improvements, will double the capacity of the docks. The work has been in progress for some weeks.

With the exception of the steamers Maryland and Manchester, other vessels of the Inter-Ocean Co.'s fleet are being laid up in winter quarters. It is not known how long the two boats will continue to run, but the Merrimac, Metacomet, Manhattan, Minnesota and Massachusetts have already been stripped and will not run again this season.

LLOYDS REGISTER SHIPBUILDING RETURNS.

(FOR THE QUARTER ENDED SEPT. 30, 1896.)

From the returns compiled by Lloyds Register of Shipping, it appears that, excluding warships, there were 355 vessels of 659,641 tons gross under construction in the United Kingdom at the close of the quarter ended September 30, 1896. The particulars of the vessels in question are as follows, similar details being given for the corresponding period in 1895 for the purpose of comparison:

DESCRIPTION.	SEPTEMBER 30, 1896.		SEPTEMBER 30, 1895.	
	No.	Gross Tonnage.	No.	Gross Tonnage.
STEAM.				
Steel	283	628,448	282	684,509
Iron	28	4 047	27	4,118
Wood and composite	2	737	5	372
Total	313	633,232	314	688,999
SAIL.				
Steel	20	23,720	23	25,307
Iron	1	226	1	226
Wood and composite	21	2,463	18	2,043
Total	42	26,409	42	27,576
Total steam and sail.	355	659,641	356	716,575

The present returns are the lowest which have been received since March, 1895. It will be seen, from the figures quoted above, that there is less tonnage now under construction than there was 12 months ago by about 57,000 tons; while, as compared with last quarter, the work in hand has fallen off to the extent of 115,000 tons, or say 15 per cent, as follows:

	No.	Gross tonnage.
Building in United Kingdom for home account, for sale, etc	237	357,811
Building in United Kingdom for foreign and colonial account	49	109,803
Building abroad for foreign and colonial account, and for sale	28	69,900
Total building on Sept. 30 for classification in Lloyd's Register Book	314	537,514

Of the vessels under construction in the United Kingdom at the end of September, 286 of 467,614 tons were under the supervision of the surveyors of Lloyds Register with a view to classification. In addition, 28 vessels of 69,900 tons are building abroad. The total building at the present time under the supervision of Lloyds Register is, thus, 314 vessels of 537,514 tons.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

ROUND ISLAND LIGHT STATION.—Notice is hereby given that, on or about October 20, 1896, there will be established at this station, on the extreme northwesterly end of Round Island, Straits of Mackinac, a 10-inch steam whistle to sound, during thick or foggy weather, blasts of 5 seconds' duration, separated by silent intervals of 55 seconds, thus:

Blast	Silent interval	Blast	Silent interval
5 sec.	55 sec.	5 sec.	55 sec.

The whistle is located above the roof of the dwelling, on its southwesterly side.

BIG BAY POINT LIGHT STATION.—Notice is hereby given that, on or about October 20, 1896, a light of the third order, showing fixed white varied by a white flash every 20 seconds, will be established in the structure recently erected on Big Bay Point, east side of the entrance to Big Bay, south side of Lake Superior.

The light will illuminate 270° of the horizon, and will be visible from all points of approach from the lake. The focal plane of the light will be 108 feet above mean lake level, and the light may be seen 18¾ miles in clear weather, the observer's eye fifteen feet above the lake.

The light will be shown from a black lantern surmounting an octagonal watch room on a square red-brick tower, rising in the center of the front of a double red-brick dwelling, with red roof.

The approximate geographical position of the light, as taken from the chart of Lake Superior, 1895, of the United States Survey of the Northern and Northwestern Lakes, will be: Latitude, North, 46° 50′ (26″); Longitude, West, 87° 41′ (06″). Bearings and distances of prominent objects are: Stannard Rock light-house, N. 42° E. (NE. ¼ N.), 32 miles; Granite Island light-house, S. 57° 30′ E. (SE. by E. ⅛ E.), 15½ miles; Huron Island light-house, N. 60° 30′ W. (NW. by W. ⅜ W.), 17¼ miles.

During thick or foggy weather a 10-inch steam whistle will sound blasts of 3 seconds' duration, separated by silent intervals of 17 seconds, thus:

Blast	Silent interval	Blast	Silent interval
3 sec.	17 sec.	3 sec.	17 sec.

The fog signal house stands about 350 feet N. 53° W. (NW. ¾ W.) from the light tower, on the lower level of land, about 25 feet above the water and about 28 feet below the light-house site. It is a red-brick structure, with red corrugated iron roof.

Bearings are true, miles are statute miles.

By order of the Light-House Board:

JOHN G. WALKER,
Rear Admiral U. S. Navy, Chairman.

Office of the Light-House Board, Washington, D. C., October 10, 1896.

NEW BUOYS AND WRECKS IN LAKE ERIE.

I. GAS BUOY ON SOUTH-EAST SHOAL.—A gas buoy was established by the government of Canada on the 2nd inst., off the south extremity of South-East Shoal south-east of Pointe Pelee, in the South Riding of Essex, Ontario. Position taken from Admiralty Chart No. 490: Latitude N. 41° 49′ 35″; Longitude W. 82° 27′ 28″. The buoy is painted red, with the words "South-East Shoal" in white letters on the sides. It is surmounted by a red conical slatwork, bearing a red lantern, from which a fixed white gaslight is shown, elevated 8¾ feet above the water. The light should be visible 4 miles from all points of approach.

The buoy is moored in 30 feet of water, immediately south of a 20-foot patch at the south extremity of the shoal. From the buoy Pointe Pelee light (the Dummy) bears NW. by N. ⅛ N. distant 3⅓ miles, and Pelee Island light W. ¼ N. distant 7⅔ miles.

II. GAS BUOY ON MIDDLE GROUND.—A gas buoy was on the same date established in 30 feet water off the north-east point of the Middle Ground in Pelee Passage, Lake Erie. Latitude N. 41° 51′ 28″; Longitude W. 82° 34′ 0″.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries, Ottawa, Canada, October 1, 1896.

TURRET BUILT STEAMERS.

Messrs. William Doxford & Sons. launched on September 22, the turret steamer Turret Court. The vessel is the fourth sister ship constructed from the same model. The vessel has been specially designed to suit the locks on the Lachine canal, Montreal. The principal dimensions are: Length, 253 feet; breadth, 44 feet; depth, 21 feet 9 inches. She has a dead-weight capacity of 3,200 tons on an 18 feet draft. The gross register is about 1,880 tons, and the net register 1,170 tons. The vessel is fitted with tri-compound engines with cylinders 20 inches, 34 inches, and 57 inches and 39 inches stroke, and Babcock and Wilcox patent water-tube boilers of 200 lbs. working pressure, capable of driving the vessel 10½ knots per hour fully loaded. The Turret Court is the twenty-ninth of the Turret series, and is the eighth vessel of this type built for the same owners.

ENGLAND'S NEW NAVY.

Lloyd's Register furnishes, in order to afford a comprehensive view of the naval shipbuilding in progress throughout the United Kingdom, the following statement of the war vessels which are at present under construction. For this statement, it has been assumed that a vessel may be regarded as "under construction" from the commencement of the laying of her keel to the time when she is ready for her steam trials. Of course, when this latter stage is reached, the guns have usually still to be placed on board, and the vessel to be fitted out, before she is ready to be commissioned; but she is, nevertheless, structurally complete.

NATIONALITY.	DESCRIPTION.	AT ROYAL DOCKYARDS. Yard.	No.	Displacement.	AT PRIVATE YARDS. Yard.	No.	Displacement.	TOTAL. No.	Displacement.
				Tons.			Tons.		Tons.
BRITISH	1st class battleship	Chatham	1	14,900	Birkenhead	1	14,900	5	74,500
		Pembroke	1	14,900	Clydebank	1	14,900		
		Portsmouth	1	14,900					
	1st class protected cruisers	Pembroke	1	11,000	Barrow	1	11,000	4	44,000
					Clydebank	1	11,000		
					Govan	1	11,000		
					Barrow	1	5,600		
	2d class protected cruisers	Chatham	1	5,750	Glasgow	2	11,200	7	39,800
		Devonport	2	11,500					
		Portsmouth	1	5,750					
	3d class protected cruisers	Sheerness	1	2,135	Elswick	1	2,135	6	12,810
					Hull	2	4,270		
					Jarrow	2	4,270		
	Torpedo boats destroyers				Barrow [4]; Birkenhead [6]; Blackwall [1]; Chiswick [9]; Clydebank [5]; Cowes [3]; Hepburn [2]; Hull [2]; Jarrow [8]; Paisley [2]; Sunderland [2]	44	14,000	44	14,000
	Torpedo boats, 2nd class				Wivenhoe	3	180	3	180
	Total		9	80,835		60	104,455	69	185,290
FOREIGN OR NOT STATED.	Battleships				Blackwall	1	12,330	5	52,560
					Elswick	4	40,230		
	Cruisers				Elswick and Low Walker	6	24,200	6	24,200
	Torpedo boat destroyers				Clydebank [4]; Poplar [4]	8	2,800	8	2,800
	Torpedo boats				Poplar	6	720	6	720
	Other vessels				Birkenhead	1	2,460	1	2,460
	Total					26	82,740	26	82,740
BRITISH AND FOREIGN	Total		9	80,835		86	187,195	95	268,030

WANT NO STRIKES.

The Federated Seamen's Union of the United States have decided to take no part in the proposed international effort to secure an advance in wages or to engage in an international strike.

In submitting his official report to the organization, T. J. Elderkin, Chicago, secretary of the international union, says: "During the month the executive board has voted on the question submitted by the British Seamen's Union respecting the formation of an international federation of maritime workers. The unanimous opinion of the executive board is that while heartily in favor of a world-wide federation, the first need is for federation among ourselves. It is true the International Seamen's Union of America has obtained a position of which it may reasonably be proud, but we are still not in a position to act alone in the projected movement. The seamen must be better organized than at present. Moreover the other maritime crafts must be thoroughly organized in their own ranks and then federated nationally. When this is accomplished the question of international federation will be within the score of national discussion."

CORRESPONDENCE.

☞We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

NAVIGATION SCHOOL.

CHICAGO, October 12, 1896.

To the Editor of The Marine Record:

DEAR SIR:—Your article concerning Mr. Wilson's navigation school in Chicago comes, it seems to me, with very bad grace from a paper whose sole excuse for existence lies in the fact that it should do all in its power to foster the interests of shipping on the Great Lakes. Will you pardon a few remarks from one who has served seven years on the quarterdeck of the British merchant service, and, therefore, it is presumed, is not altogether ignorant of the great good such a school can do in Chicago for lake navigation.

Perhaps you are not aware that Mr. Wilson is principal of the only school of navigation in this city. This school was opened last winter at the earnest solicitation of a number of lake captains, yachtsmen and members of the naval militia. That it has been a success is evidenced from the fact of the large number who have applied for instruction during the coming winter, and also from another fact, viz., one of Mr. Wilson's pupils, a member of the naval militia, was recently appointed a cadet on board the Atlantic Liner Paris on the recommendation of Mr. Wilson, which plainly shows that the fame of the Chicago Nautical School has penetrated to the seaboard, a high compliment to its principal.

As I understand it, one of the main functions of branch hydrographic offices is to furnish any information they may have in their possession to any one requiring it. This answers your objection to the free idea. It is a rule in the civil service that any civil servant has a perfect right to do whatever seems to him best in his leisure time. If it were otherwise it would interfere with his liberty as a private citizen. So Mr. Wilson has the right to conduct a school in the evening if he so desires, and especially if he be so strongly urged to do so by men who are desirous of learning. Moreover, if he has the right to conduct the school he also has the right to charge for the instruction he imparts. This does not prohibit a private citizen from starting a similar school. As a matter of fact it would be better for Mr. Wilson if some one else did start another school, for his training at Annapolis has so thoroughly prepared him as a teacher in the science of navigation that the difference in the two schools would be so marked that the other fellow would in all probability soon have to "shut up shop." All the other naval academy graduates in Chicago are officers in the naval militia, on which I hold a commission, and I personally know that none of them desire to start such a school.

It is to the general benefit of lake navigation that

every captain and officer, every yachtsman and naval militiaman should know all that he can of navigation, and you must agree, therefore, that Mr. Wilson's school is for the best interests of lake navigation. I may state that I hold no brief for Mr. Wilson in this matter. I am writing in the interests of fair play and of our lake sailors. Thanking you in advance for publishing this letter, I am, sir,

Yours truly,

W. J. BLUE,

Ensign, Ind. Div., 1st Batt., N. M. I.

THAT CHICAGO SCHOOL.

BUFFALO, October 14, 1896.

To the Editor of The Marine Record:

Your editorial in the issue of October 8, is directly to the point, about government officers taking up the time that they are paid for by the people, in teaching the public, or the marine part of it. If such a departure was attempted across the border in Canada, the clerks, third mates, and other idlers in the government offices would soon be called down and probably sent about their business, that is, if they could find a better one than they had, as it appears to me that Mr. Wilson of Chicago, finds it better giving navigation lessons in the people's and government time, than in sticking to his work. I am squealing because the navy office at Chicago is likely to rob me of some of my work in plotting charts, though if it was private competition I would not kick worth a cent and never have.

I go with you and your article in holding that government employes should answer all inquiries, treat the public courteously, but not infringe on any citizen's private business, or take the bread out of another man's mouth when they have enough themselves.

Yours truly,

A TEACHER OF NAVIGATION.

DANGER OR DISTRESS SIGNALS WANTED.

MILWAUKEE, Oct. 14.

To the Editor of The Marine Record:

I suppose you have noticed the usual amount of criticism after a wreck occurs near a life-saving station and when there is any loss of life. The wreck of the tow barge Sumatra off this port was another of those many fatalities where the fault lies elsewhere than at the doors of the life-saving crew. You perhaps remember that about three years ago I suggested a code of danger or distress signals to be used when a craft was in need of assistance from life-saving stations and the general superintendent endorsed the opinion, expecting at his earliest convenience to bring the question up for consideration before the board empowered to act upon such changes. I am aware that there is an optional signal given in the steamboat inspectors' rules, but it is not generally known and never used, in fact, it has only quite recently been recommended. As far as sail craft are concerned there is no regulation signal whatever and it is sail and tow barges that nearly always require assistance. The ensign hoisted union down is all right by day and would always command assistance, but how is it on a dark night? The flaring of a torch is the accepted signal for a tug, and life-savers can't always tell that their services are wanted just from seeing a torch burning in the offing. We not unfrequently have gone after a vessel having her ensign at half mast, thinking that such might be a mistaken hoist to convey the idea of wanting assistance, as many think it is and hoist it accordingly, and although we know it is a signal for a death aboard of the craft, yet if it was hoisted for assistance and we did not respond there would be no end of complaints and charges of inattention brought against us. I would like to see some regulation adopted for all sail and tow barges on the lakes, giving them suitable and uniform distress signals, and while on this subject why not see that the same class of vessels are all fitted out with a supply of good life-belts, so that if the crew did get overboard we might have a chance of rescuing them if the life-belts would only float them for half an hour? If the crew of the Sumatra had been given good life-belts I dare say every man would have been saved. Let us have a proper distress signal, see that the older class of vessels are provided with a superior quality of life-belts and there would be less fatalities during the winter months. I believe that I have the support of every marine man, also every member of the life-saving stations on fresh water in this matter and would be very much pleased to hear from others who are interested in saving lives.

F. BOUTIN,

Keeper Life-Saving Station.

LARGE LAKE TONNAGE.

The largest vessel built in the United States to which official numbers has been assigned by the Bureau of Navigation, Treasury Department, Washington, D. C., for the week ending October 3, 1896, was the Robert Fulton, 4,220 tons gross and 3,182 tons net, built by the Detroit Dry-Dock Co., at Wyandotte and hailing from Duluth, Minn. This is one of the Rockefeller or Bessemer fleet of new steel steamers. The Fulton easily leads the lists of new tonnage, as the next largest is a 525-ton sailing vessel hailing from San Francisco, Cal.

BRITISH SHIPBUILDING.

The following table gives the total figures for vessels now under construction in the principal British shipbuilding districts as compared with those of the same period last year. Each district of course includes places in the neighborhood of the port after which it is named:

DISTRICT.	DESCRIPTION.	SEPT. 30, 1896. No.	SEPT. 30, 1896. Gross Tonnage.	SEPT. 30, 1895. No.	SEPT. 30, 1895. Gross Tonnage.
Belfast	Steam	22	124,851	18	98,488
	Sail	...	...	...	...
	Total	22	124,851	18	98,488
Barrow, Maryport & Workington	Steam	7	7,750	4	8,310
	Sail	3	3,740	7	5,760
	Total	10	11,490	11	14,100
Glasgow	Steam	81	158,095	70	153,720
	Sail	1	1,630	2	3,430
	Total	82	159,725	72	157,150
Greenock	Steam	22	37,134	25	60,860
	Sail	10	16,365	8	12,020
	Total	32	53,499	33	72,880
Hartlepool and Whitby	Steam	10	30,090	18	51,480
	Sail	...	...	...	...
	Total	10	30,090	18	51,480
Middlesbro' and Stockton	Steam	25	43,884	22	50,843
	Sail	5	1,710	2	972
	Total	30	45,594	24	51,815
Newcastle	Steam	53	113,626	52	108,788
	Sail	...	...	...	...
	Total	53	113,626	52	108,788
Sunderland	Steam	34	81,639	42	119,895
	Sail	...	...	...	...
	Total	34	81,639	42	119,895

In the above connection we find that there are 92 steamers being built, their tonnage ranging from 3,000 to 10,000, but there are only two of the largest tonnage, 43 of between 3,000 and 4,000 tons, four between 4,000 and 5,000 tons, and 19 between 5,000 and 6,000 tons, seven from 6,000 to 7,000 tons, and six from 8,000 to 9,000 tons.

BUFFALO'S COAL TRADE.

The following statistics of the coal trade of Buffalo were compiled by Mr. William Thurstone, secretary of the Merchants' Exchange:

Railroad receipts and shipments not reported by request. No receipts of coal by lake for several seasons. Shipments of coal westward by lake for the month of September, 337,047 net tons, as compared with 362,155 net tons in 1895 and 304,910 net tons in 1894; for the season to October 1, 1,574,081 net tons, as compared with 1,491,181 net tons in 1895 and 1,563,977 net tons in 1894. The receipts of coal by canal for the month of September, 4,914 net tons, as compared with 4,684 net tons in 1895 and 10,117 net tons in 1894; for the season to October 1, 24,260 net tons, as compared with 10,166 net tons in 1895 and 26,023 net tons in 1894. The shipments by canal for the month of September none, as compared with none in 1895 and 856 net tons in 1894; for the season to October 1, 755 net tons, as compared with 4,289 net tons in 1895 and 6,269 net tons in 1894. The aggregate shipments of coal westward by lake this season to October 1, show an increase over 1895 of 79,900 net tons, and over 1894 of 10,104 net tons. The rates of freight during the month of September were 20c to Chicago, Milwaukee, Duluth and Lake Superior ports, Green Bay, Toledo, Detroit, Gladstone; 20@25c to Racine; 40c to Saginaw; 25c to Bay City. A year since the rates were 65@75c to Chigago; 60@65c to Green Bay and Milwaukee; 30c to Duluth and Lake Superior ports; 25@30c to Bay City; 35@45c to Saginaw; 75c to Racine, and 25@30c to Toledo.

The shipments of coal by lake thus far this season to October 1, were distributed about as follows: 609,500 net tons to Chicago, 432,280 tons to Milwaukee, 178,210 tons to Duluth, 15,025 tons to Racine, 19,600 tons to Green Bay, 4,490 tons to Kenosha, 200 tons to Oscoda, 12,865 tons to Bay City, 12,845 tons to Saginaw, 56,825 tons to Toledo, 1,900 tons to Detroit, 1,200 tons to Benton Harbor, 388 tons to Midlands, 530 tons to Sturgeon Bay, 475 tons to St. Clair, 400 tons to Marine City, 450 tons to Algonac, 3,350 tons to Washburn, 225 tons to St. Ignace, 2,050 tons to Menominee, 10,675 tons to Marquette, 100 tons to Pequaming, 11,488 tons to Fort William, 11,060 tons to Lake Linden, 600 tons to Grand Haven, 1,750 tons to Marinette, 5,200 tons to Hancock, 800 tons to Cheboygan, 7,750 tons to Ashland, 154,725 tons to West Superior, 3,220 tons to Sault Ste. Marie, 1,250 tons to Sheboygan, 300 tons to Bay Mills, 2,100 tons to Port Arthur, 320 tons to Sand Beach, 1,150 tons to Port Huron, 2,125 tons to Michigan City, 18,134 tons to Manitowoc, 14,800 tons to Gladstone, 400 tons to Ontonagon, 100 tons to Alpena, 300 tons to Manistique, 500 tons to Huron, 1,070 tons to Portage, and about 36,500 tons to various ports by vessels loading here but clearing from Tonawanda light.

TALK OF MORE SHIPBUILDING.

A special from Benton Harbor, Mich., the home port of the Graham & Morton line, states that Mr. Frank E. Kirby, of Detroit, has detailed plans for a new steamer to be built for the Graham & Morton Company during the coming winter to be put into commission next May. She will be licensed to carry 3,000 passengers and will be a counterpart of the City of Buffalo, built by the Detroit Dry-Dock Co. and placed on the line between Cleveland and Buffalo this season. The contract, it is stated, will be signed some time next week.

At a meeting of the board of directors of the Richelieu & Ontario Navigation Company, held in Montreal, the financial statement of the company on September 1, was submitted by the president, Hon. L. J. Forget. It showed a very satisfactory state of affairs, and a very large decrease in operating expenses, coupled with an increase in earnings over the previous season. The president emphasized this with the statement that although in the beginning of the season the weather was unfavorable to heavy travel, and the usual depression accompanying the general elections both in Canada and on the other side of the line, had also been an adverse factor, the management were happy to be able to announce the usual half yearly dividend of three per cent. which would be payable on November 2. The condition of the company's finances was held to justify the construction of two new boats, to run between Toronto and Prescott, for the better accomodation of the royal mail service. It is the intention of the directors, as expressed at the meeting, that the two boats will be of steel, of 275 feet in length, side-wheelers, and rivaling anything of the kind yet known in Canadian waters. The speed of these boats must be twenty-two miles an hour.

GAS BUOYS ARE ALL RIGHT.

At the request of the Canadian Minister of Marine the masters of the Detroit & Cleveland Steam Navigation Co. were asked to observe closely the workings of the new gas buoys placed by the Dominion government in Lake Erie, and report that they are visible when the boats are from 27 to 29 minutes off on clear nights and which is equal to seven miles. They are a great success.

Messrs. Harland and Wolff, Limited, Belfast, are stated to have obtained five important orders for new steamships. Two of these are for the White Star Line, one being a cargo steamer of 500 feet in length, and the other a mail and passenger steamship, larger than the Cunard Line steamers, Campania and Lucania. Nothing is stated as to speed, but it will not be surprising if it will be attempted to again break the record. The Union Line Steamship Co. is credited with having given one of the orders, and for a steamer larger than the Norman or Scot. This latter vessel was recently lengthened 54 feet, making her length 554 feet.

MARINE RECORD

(ESTABLISHED 1878.)

PUBLISHED EVERY THURSDAY BY

THE MARINE RECORD PUBLISHING CO.,

[INCORPORATED.]

GEORGE L. SMITH, President.

C. E. RUSKIN, ... MANAGER.
W. L. MCCORMICK, ... EDITOR.
THOMAS WILLIAMS, Chicago, . . . ASSOCIATE.

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FOURTH FLOOR, WESTERN RESERVE BUILDING,
CLEVELAND.

Entered at Cleveland Postoffice as Second-Class Mail Matter.

CLEVELAND, O., OCTOBER 15, 1896.

We are in receipt of two communications this week, one from Chicago and the other from Milwaukee, signed a Chicago subscriber and an old subscriber. While the questions treated upon are relevant to these columns, we would ask that our correspondents sign their names, as the stereotyped phrase goes, "not necessarily for publication but as an evidence of good faith," otherwise their views will not see daylight at this end of the line.

* * *

The Illinois Steel Co. is a larger factor in the lake carrying trade than seems to be generally recognized. At the present time they have quite a fleet of boats under season charters, running up to Dec. 1, and though they have not engaged the cream of lake tonnage, yet there are good names among the fleet too. Several of the vessels under charter are the Pentland, Isabella J. Boyce, James Mowatt, Cormorant, B. W. Arnold, Tokio, Hattie Wells, Porter, Oak Leaf, and others. These vessels carry scrap iron, steel billets, railroad iron, wire in bundles, fine bar steel, etc.

* * *

The keeper of the Milwaukee life-saving station, in a communication to THE RECORD this week advocates a distinct danger or distress signal for sailing vessels and tow-barges, also that they be fitted out with reliable life-belts. No one could positively disagree with his views on this subject, and owners should see to it that all of their vessels are at least supplied with the best life-saving appliances obtainable. It is not necessary to tow another vessel along in case anything should happen to the one that you are in, but it is common humanity to see that boats are provided with a fair equipment for winter work.

* * *

The gas buoys placed by the Dominion government in the Pelee Passage, Lake Erie, are reported as burning steady and bright and are therefore a success. Shipmasters running on the route were asked to watch how the new lights acted. Being an American patent, the Canadian officials were perhaps a trifle dubious about their staying and lighting qualities as well as of all the good words said about them, they are now satisfactory in every way so that it is more than likely that additional gas buoys will be placed on the lakes as occasion demands. In making a report of the buoys, the Canadian officials were informed "that they were visible when the boats were from 27 to 29 minutes off on clear nights and which is equal to seven miles." This is a novel and almost original way of stating distance, position, speed and state of weather on various trips.

THAT GENERAL SHIPPING STRIKE.

Considerable space has been taken up in our foreign exchanges with discussions on the effects of a general strike, shut down and tie up of all business pertaining to shipping. A universal organization of labor was to be formed so that demands made on employers would have to be granted. In trying to bring about such an international federation of all labor connected with shipping, one of the principal leaders crossed from England to the continent of Europe but before he could get a chance to ventilate his opinions and combine forces he was clapped into jail and later shipped out of the country on the grounds that he was a disturber of the peace and meant no good to the labor element. The sailors of the lakes, stevedores, 'longshoremen and kindred bodies were all expected to join in the general effort to secure an advance in wages, better treatment, etc., but so far the international union has not countenanced the proposed action of the British Seamen's Union, preferring rather to strengthen their unions and affiliations before entering so extensive a fight against employers of labor and capital. Organized labor is fast coming to the front though perhaps not so markedly in the United States as in some of the foreign countries, which is rather a strange state of affairs, too, when we hold as a fundamental principle that in union there is strength. Labor, common and skilled is, as we have said, arriving at a knowledge of this well known principle and is constantly combining for general support in times of trouble. However, there was never the slightest danger of lake commerce being tied up at the instigation, if not command of a clique of English agitators, and the judgment of the secretary of the international union who sits down on the projected universal strike is commendable though he gives as the chief reason for his action the fact that the seamen must be better organized than at present and other maritime crafts as well. In thus summing up the situation on the coast, lakes and rivers, the executive board of the labor unions acted advisedly and in a circumspect manner, for they would but prove their weakness, at least so far as the lakes are concerned, by seeking trouble with employers of labor at this time.

COAL CARRYING.

Freights rates from upper lake ports are now on the improve, and although there is but little coal moving, the less carried for the miserable rates offered the fairer it will be for all vessel owning interests. Large wooden steamers want to be down in the water if they are to do anything in hard fall weather, but there is no such an excuse for the new iron and steel tonnage having large water bottoms and enabled to carry plenty of water ballast. The point to emphasize now, is, that all steamers should take as little coal as possible and that only for ballast purposes, until a fair living freight is offered on the bulk cargo. It is poor business to make freight one way pay all expenses for the round trip and it is well known that nothing could be figured out handling coal, though of course owners only have themselves to thank or blame for such a state of affairs as coal shippers have always been free to admit that they are only too willing to see vessels getting a living rate of freight, only, that all must so charter, and lay coal down at uniform lake charges at each port as it is ruinous for shippers to find themselves handicapped five or ten cents a ton on a block of coal, through being landed at destination that much cheaper by competitors in the business. At this juncture coal could well be slighted as much as it has slighted vessels in the past, and the tonnage kept moving lively with prompt dispatch on cargoes one way only, unless compulsory detention through vessels bunching at loading or discharging ports was experienced. Similar suggestions have been advanced before and sometimes taken advantage of after the question had been looked fairly over so that the remainder may not be inopportune at this time.

* * *

The Mariposa, owned by the Minnesota Steamship Co., Cleveland, was one of the latest, largest and best steel steameas afloat, only three years ago. Today she is a good deal of a long-boat when compared with the 400-footers, toting along anywhere from 4,000 to 5,000 tons of cargo on a light draft, or what would be ballast trim for coast and ocean tonnage. The Mariposa was in Buffalo this week, discharging what would have been considered an enormous cargo a year or two ago, consisting of 106,500 bushels of wheat. The later built craft, Maricopa, was in port at the same time, with the modest jag of 187,000 bushels of corn. The foregoing is only a prelude to quoting from the late Gen. O. M. Poe, Corps of Engineers, U. S. A., when he said: "For 35 years I have watched the increase in our lake commerce, but neither I nor any one else has been able to expand in ideas at the same rate. The wildest expectations of one year seem absurdly tame by the side of the actual facts of the next." In shipbuilding, the late General's views read like a prophecy, for anyone who would have mentioned, a few years ago, or thought of vessels like the Mariposa, her dimensions and carrying capacity, entering into the lake trade, would have been pronounced a fit subject for the nearest lunatic asylum. There are several of her here now, and men are found to handle them like yachts—iron ore ones at that.

* * *

It is not quite clear that Canadian vessels will suffer the imposition of a fine for steaming over a seven mile gait, in the "Soo" River. Vessels owned in the United States are clearly subject to the rules, but American laws cannot be made for our neighbors—the Canadians, without entering into a mutual agreement. The Canadians will be using the old channel and their own "Soo" canal if anything like unjust discrimination is evidenced, or even any appearance of such. The present contention should never have been allowed to arise nor could it have done so if the Canadian owners of vessel property had been fully advised of the general benefits of the enforcement of rules and their sanction obtained to live up to the American code when steaming through the "Soo" River. Harmony and good feeling may be maintained between both countries if foresight and patience is exhibited on either side, friction even in details should be strenuously avoided.

* * *

Vertical rays of light proceeding from a light-house showing an electric light have been found of great advantage in penetrating low-lying fogs and casting a well defined reflection in the sky. With further experiments along this line it might be found that the vertical rays in some localities gave as good results as those showing in a horizontal direction, or, in fact, a much more valuable safeguard to life and property; for, as at present arranged the horizontal rays of light can not penetrate through even a light fog belt, or thick, hazy weather, while the vertical beams have been sighted in the sky during misty, hazy weather. Little is known about the fog conditions on the several lakes, but if the subject was looked into more carefully it might be found of incalculable benefit to arrange for vertical rays being shown from some of the leading lights as the fogs are not unusually found hanging over the lake, or low lying. Not alone on the coast, such for instance as going into New York harbor in thick weather, can a vessel be piloted from the masthead while proceeding in a blanket of fog. The same conditions are frequently found on fresh water and it is at such times that vertical rays of light would be found of great advantage to lake tonnage.

* * *

When a vessel grounds, gets fairly stranded, or fetches up on the bottom through collision or other casualty, it is, of course, the right thing to get her out of the fairway or channel at the earliest possible moment. It is not always prudent or lawful to begin jettisoning cargo in shoal places as such a proceeding would, in nearly all cases, lead other vessels into trouble, and this is what is said to have been the case when the steamer Chisholm jettisoned part of her iron ore cargo after being in collision and sunk in the Detroit River. It is now made clear that the Chisholm never jettisoned a pound of ore and was not the cause of the two steamers grounding. There is no doubt but that cargo has been dumped everboard in shoal water in the past and consequently it is well to call attention to the better, if slower, mode of lightening and reloading cargo than it is to dump it and create new obstructions to shipping.

* * *

The thanks of THE MARINE RECORD are due to the U. S. Light-House Board for duplicate copies of the list of beacons, buoys and day-marks of the northern lakes and rivers corrected to the opening of navigation, 1896. This valuable publication seems to be enhanced each year, more and better details are now given

and the sailing directions are more explanatory yet concise. It cannot be too widely known that mariners and others interested in commerce and the preservation of life and property from loss by shipwreck on our coasts are earnestly requested to give prompt information to the Inspector of the Ninth Light-House District, Chicago, Ill., the Inspector of the Tenth Light-House District, at Buffalo, N. Y., or the Inspector of the Eleventh Light-House District, at Detroit, Mich., of cases in which any of the buoys or day-marks described in the list are out of position, and of all cases in which the published instructions from the Light House Board are not strictly executed, that the board may, with as little delay as possible, apply the proper remedy, and prevent neglect of duty in matters connected with the day-marks of the United States.

* * *

There is sometimes reason in keeping a lock over the face of a timepiece aboard of a ship as the temptation to "beat the clock" ahead is more than a drowsy man can stand sometimes, but the New York Marine Journal shows up a case last week where the wily flatfoots apparently tried to beat geography by flogging the chronometers. The Journal says: "There is one peculiar circumstance in connection with the recent seizures of sealing schooners in the Bering Sea. The six schooners taken in by the cutter Richard Rush were seized on the ground that they were killing seals inside the prohibited area, the cutter's chronometer showing such to be the case. The chronometers on the schooners all showed a different reckoning, and strange to say all of them agreed to a nicety." Now these fellows were not lunarians by any means so that they could not be expected to ascertain their longitude any nearer than their chronometer sights worked up, and so, their sealing on prohibited ground must be judged as simply an error in position, as found by the best means at their disposal. It is rather a slick trick though to flog chronometers and keep the track of a double position at sea.

* * *

A Chicago reader of THE MARINE RECORD writes this week as follows: I heartily endorse your position in regard to the free instruction given by the U. S. government officials in the Navy Department office, at the Masonic Temple, Chicago. Let the government officers stick to government work and not come in competition with private individuals who have not the United States at their back. This is in line with our suggestion of last week and is both right and proper, that is, if the work—instruction, or any portion of it, is done during working hours. There are several men in Chicago who are competent and willing to teach navigation, give instruction in chart work and explain the theory of compass deviation in its entirety. A government employe taking advantage of his official position has been and is now doing this work and his superior officer should see that no official duties were neglected on account of his outside occupation or extra employment. There has been entirely too much trading on the strength of official positions in various departments of the government and it ought to be stopped, if only to maintain the dignity of office-holding.

* * *

Whether American builders are to capture any contracts from the Japanese government is not yet known. In the line of merchant steamers the British are securing a fair share, as there are at present eleven twin-screw steamers building for the Nippon Yusen Kaisha, each of between 5,000 and 6,000 tons gross register. Five of these vessels are being constructed by Hendersons, Glasgow, who has previously supplied the same owners with a steamer. Another Clyde firm are building three; and Belfast has a contract for two; the remaining one is being built in Japan. In naval work, besides the two new ships now building for Japan, five of the leading shipbuilding firms have been asked for bids on the construction of a battleship, to have a displacement of about 15,000 tons, Belleville boilers and a speed of 18 knots. It is further reported that although tenders have been asked for only one ship in each case, it is not improbable that two or three may be ordered on the prices and designs now being submitted to the Japanese Naval Commission.

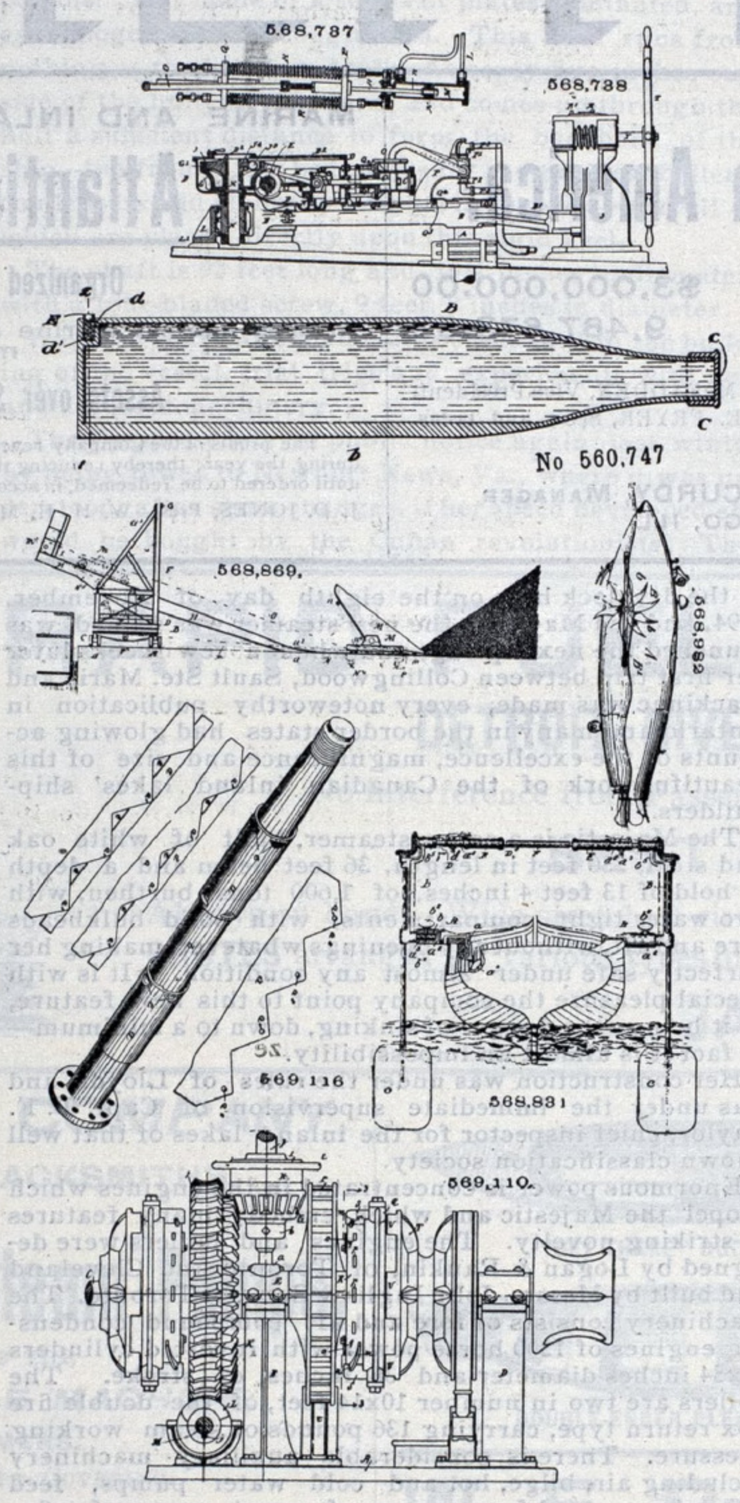
It is reported that the Mobile people who wanted to buy the Unique, then fell off just before the time to sign the bill of sale, have asked Mr. McElroy, her owner, to extend the time of their option on the purchase.

RECENT PATENTS GRANTED.

No. 568,737. A telemoter apparatus for steering machinery. Andrew B. Brown, Edinburgh, Scotland.

Claim.—1. In a telemotor apparatus the combination of the following-named parts: A double-acting transmitting-cylinder; a piston, within cylinder, provided with a piston-rod; a rack-bar formed upon or secured to piston-rod; a housing or frame; a pinion mounted upon a shaft and meshing with rack-bar; a hand-wheel mounted upon a second shaft; gearing connecting pinion with haud-wheel shaft; a receiving-cylinder provided with a piston; pipes connecting transmitting and receiving cylinders; and means for centering the piston of receiving cylinder.

2. In a telemotor apparatus, the combination of the following-named parts: A double-acting transmitting-cylinder; a piston, within cylinder, provided with a piston-rod; a rack-bar formed upon or secured to piston-rod; a housing or frame, as *c*; a pinion, as D, mounted upon a shaft, as *d*, and meshing with rack-bar; a gear-wheel, as E, mounted upon shaft and meshing with a second gear-wheel, as E′, secured to a second shaft, as *e*; a hand-wheel shaft, as *f*, carrying at one end a pinion, as F, in mesh with second gear-wheel, and at the other end a hand-wheel, as G; a receiving-cylinder provided with a piston; pipes connecting transmitting and receiving cylinders; and means for centering the piston of receiving-cylinder.



No. 568,738. Apparatus for Steering Vessels, Andrew B. Brown, Edinburg, Scotland.

A steering apparatus for vessels, consisting of a tiller or frame secured to the rudder-head and carrying the following-named parts: Cylinders provided with pistons and connecting-rods; a crank-shaft operated by said rods and having a worm-gear fixed thereon; a worm-wheel loosely mounted on a vertical shaft and meshing with said worm-gear, said worm-wheel being provided with suitable clutch mechanism to cause it to engage its shaft; and a pinion secured to said vertical shaft and meshing with a fixed rack secured to the deck of the vessel.

No. 560,747. Is an oil carrying projectile, patented by Capt. Simon O'Day, Muskegon, Mich. This invention relates to an improvement in devices for smoothing broken water by the application of oil set floating, not from the surface, as is usual in present devices, but to raise from the bottom to the surface through a steady supply leaking out from the cylinder after it has been deposited where wanted. The shells or cylinders of various makes and sizes are to be used from a gun, thrown by hand, or may be kept hanging over the side from the jib-boom end, attached to the cable when anchored, or by being towed when running before the wind. The device is specially adapted for life-saving work and in the ordinary duties of those who handle sail and row-boats. The inventor of this device is a practical seaman and is at present in command of the steamer Isabella J. Boyce.

No. 568,869. Is a portable device for loading vessels, patented by John McMyler, Cleveland, O. The inventor shows the combination with a movable truck, and a scoop-shaped car pivoted thereto, of a flexible line attached to the truck passing around a pulley in advance of the truck and then rearwardly to a point behind the truck for forcing the scoop into a mass of coal and means for withdrawing the scoop from the mass of coal, also having a movable device with a trackway thereon and a series of tracks located side by side, the movable trackway adapted to register with any one of the series of tracks, of a truck, a scoop-shaped car pivoted thereto, a flexible line attached to the truck, passing around a pulley in advance of the truck and then rearwardly to a point behind the truck whereby the truck with the scoop thereon is forced from the movable track into a mass of coal covering any one of the series of tracks, and means for withdrawing same.

No. 568,984. Life-saving apparatus for vessels. Louis Konrad and Gustav P. Fromm, Brooklyn, and Hans Kauer, New York. Claim.—1. A life-saving apparatus for vessels, consisting of a torpedo-shaped hollow body, a propeller at the rear end of the same, a transverse shaft, paddle-wheels having curved and pointed paddles applied to the ends of the shaft, a motor for imparting rotary motion to the paddle-wheels and propeller, a reel for the life-line at the interior of the body, and a guide-tube for the life-line extending from a point above the reel toward the rear end of the body.

No. 568,869. Propelling apparatus for boats. Patentee, James F. Bliss, Boston, Mass. The combination with an outrigger, having a socket therein, of a bracket, provided with a spindle adapted to be loosely secured in socket, a shaft mounted in bracket and carrying a propelling-blade, a second shaft also mounted in bracket, and connections between shafts, whereby movement of one causes movement of the other.

2—A shaft, a suitable journal bearing therefor, engaging surfaces provided on bearing, a dog carried by shaft to co-operate with engaging furnaces, and connections between shaft and a propelling-blade.

3—The combination with an outrigger, of a bracket, a socket in one and a spindle on the other, spindle being adapted to be loosely secured in socket, a shaft mounted in bracket and carrying a propelling-blade, a second shaft also mounted in bracket, connections between shafts, whereby movement of the latter causes movement of the former, and means to lock the latter against rotary movement.

No. 569,116. A propeller shaft for marine engines, Ald. B. Morrison, Hartlepool, England. Patented in England, France, Belgium and the United States. Claim.—A propeller-shaft provided with a liner in the shape of a tube or hollow cylinder, whereof the end or ends exposed or liable to exposure to the action of sea-water, is or are made to terminate in an uneven or irregular form, whereby the line of division or contact between the adjacent exposed surface of the shaft and liner will not be locatod wholly or mainly in a plane at right angles to the axis of the shaft.

No. 569,110. Ship's windlass. Patentee, Joseph P. Manton, Providence, R. I. Claim.—In a ship's windlass the combination of the worm-gear upon the windlass shaft, with the driving-shaft and bearing-boxes, the slidable worm engaging with the worm-gear, and the removable cap resting over the shaft, in the space between the end of the worm and the face of the bearing-box.

2. The combination of the windlass-shaft C, and the loose wildcat T, provided with the projecting clutch-lugs V, with the clutch-head Q, keyed to the windlass-shaft, the cam-ring R, provided with the openings *p*, the holding-plates *o* provided with the friction-pads *q*, and the sliding clutch-bolts S, held in the clutch-head Q, and provided with the notches *s*, for engagement with the operating-cams.

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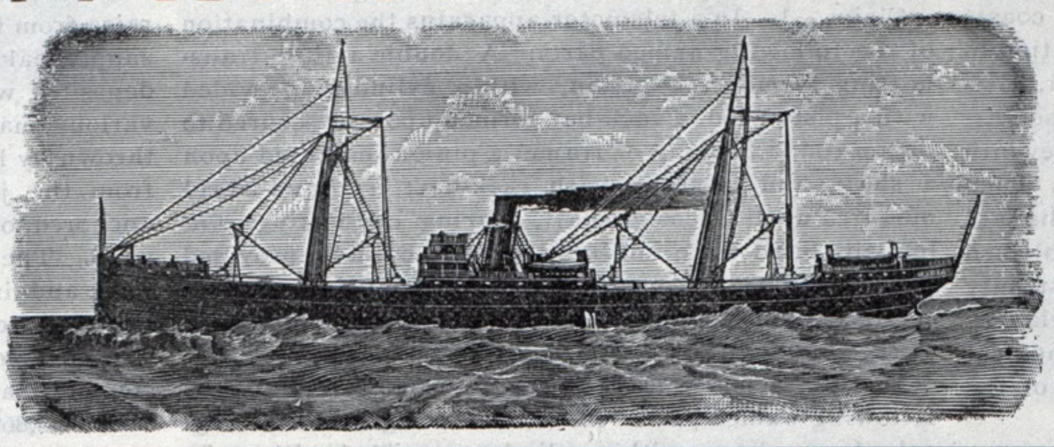

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A DESCRIPTIVE ARTICLE ON COLLINGWOOD, ONT., AND ITS BRIGHT FUTURE.

(COMMUNICATED.)

Situated at the most southerly end of the Georgian Bay, one of the greatest inland lakes of this continent, is the picturesque town of Collingwood, nestling at the foot of the Blue mountains. The town, like many of the ports of the Great Lakes is built on a location formerly occupied by the noble red man as his hunting grounds. Being so situated Collingwood has been the head of navigation on Georgian Bay for many years. In early history it was the headquarters of the earliest fur traders and Jesuit missionaries, and later was on the route of the voyageurs to the north shore of Lake Huron and Lake Superior. The first missionaries to these parts, who came in canoes by way of the Ottawa and French Rivers, found a large village of Indians in the immediate vicinity of the town. At the time of the Red River rebellion in Manitoba and the North West Territories in 1872, Lord Wolsey with his regiment embarked at this port. At that time the marine interests of the town were beginning to assume some proportions. Since then they have made rapid strides and the port now stands among the foremost. During the past fifteen years the harbor has been greatly improved at a large expense. Lighthouses have been built, piers have been extended on the north and east sides sufficient to protect vessels from the fiercest storms of the Georgian Bay. Dredging has also been done and any loose boulders found have been removed. The Liberal government which has recently been returned to power intend to do further work, which will be in progress next spring. Plans have been prepared for deepening the harbor inside to eighteen feet and its approaches to twenty feet, sufficient depth to float the largest steamers on the inland lakes when loaded. The government in the supplementary estimates which were laid before parliment recently have placed twenty thousand dollars to begin the work here. The grants from the government will be supplemented by the town by twenty-five thousand dollars.

The G. T. R. have made this their terminus and have a large elevator and warehouse erected on the docks.

The Great Northern Transportation Co. is the pioneer steamship company of the upper lakes, although wild cat steamers had been running for some years previous. But not until this company was organized was the shipping of the port of any considerable proportions. This company started with steamers which were thought to be sufficiently large to take care of the trade for many years, but so rapidly did it increase that from year to year the company were compelled to add boat after boat to their fleet. In 1894 the company decided to build another new steamer. Models were submitted and that of Mr. S. D. Andrews, manager of the Collingwood Dry-Dock and Wrecking Co., were accepted. This company was also the successful tenderer for the construction of the hull. Accordingly the keel was laid in the dry-dock here on the eighth day of November, 1894, and the Majestic, the new steamer was named, was launched the next spring; and when a few weeks later her first trip between Collingwood, Sault Ste. Marie and Mackinac was made, every noteworthy publication in Ontario and many in the border states had glowing accounts of the excellence, magnificence and size of this beautiful work of the Canadian inland lakes' shipbuilders.*

The Majestic is a screw steamer, built of white oak and steel, 230 feet in length, 36 feet beam and a depth of hold of 13 feet 4 inches, of 1,600 tons burthen, with two water tight compartments, with solid bulkheads fore and aft, without any openings whatever, making her perfectly safe under almost any condition. It is with special pleasure the company point to this new feature, as it brings the danger of sinking, down to a minimum—in fact it is almost an impossibility.

Her construction was under the rules of Lloyds and was under the immediate supervision of Capt. T. F. Taylor, chief inspector for the inland lakes of that well known classification society.

Enormous power is concentrated in the engines which propel the Majestic and which embody many features of striking novelty. The engines and boilers were designed by Logan & Rankin, of Toronto and Cleveland and built by Messrs. John Inglis & Sons, of Toronto. The machinery consists of fore and aft compound condensing engines of 1200 horse power with inverted cylinders 28x54 inches diameter and 36 inches of stroke. The boilers are two in number 10x14 feet, of the double fire box return type, carrying 136 pounds of steam working pressure. There is considerable auxiliary machinery including air, bilge, hot and cold water pumps, feed water heater and force pumps of great power for fire protection. The electric light equipment was installed by the Canadian General Electric Light Co., of Toronto. The current is furnished by a thirty-five horse power engine of the high speed type. Incandescent lights are distributed throughout the steamer, including every stateroom, and a row of bulbs surrounds the promenade decks, which when turned on gives the steamer a beautiful appearance at night.

In the interior apartments money has been spent sufficiently to fit up the steamer in such a way as to make her the most attractive and elegantly furnished steamer sailing on the northern waters. Passengers board the steamer through entrances especially devoted to them, forward of the engine room. These lead to the main stairway which leads to the main saloon. This saloon is beautifully furnished in Victorian style in white and enamel and gold and furnished with soft carpets, lounges, ottomans and mirrors. The staterooms which open off the saloon are large and well ventilated and contain berths which are fitted up in such a way as to render any discomforts of traveling by steamer er reduced to a minimum. The dining saloon is forward of the machinery and is lighted from above. It is finished in white and gold and has a seating capacity of one hundred and twenty people. An attractive feature of which the summer tourists take advantage, is the hurricane deck of the steamer which is two hundred feet long and which on account of its location and size affords solid comfort and enjoyment to the numerous passengers.

The Majestic may justly be said to be the embodiment of the finest skill and workmanship which modern marine architecture has attained, and in point of comfort and rapidity of travel, she is the highest rank of inland lake steamers. Since coming out in the spring of 1895, the Majestic has been commanded by Capt. P. M. Campbell, commodore of the G. N. Transit Co's. fleet, and has been on the route between Collingwood, Sault Ste. Marie and Mackinac, where a succesful business has been done.

The officers of the G. N. Transit Co. are: Wm. Kough, president; Thos. Long, secretary, and Chas. Cameron, manager. Mr. Cameron resides in Collingwood and personally attends to the management of the company.

*The Majestic was illustrated in these columns October 1.

AN ITALIAN FAMILY SHIP.

The Italian bark America, Capt. Ferrari, at Philadelphia, from New York, under charter to load case oil for a port in Sicily, is different from the ordinary merchantman, in the composition of her crew and the manner in which she is fitted up in the cabins. Capt. Ferrari is 76 years old, and for fifty-five years has been a successful and daring navigator. Time has dealt lightly with him, and he is hale and hearty as many men forty years his junior. His crew have been with him for fifteen consecutive years, and all on board his big craft are like one big family. There are never any differences of opinion, and, while the ordinary ship discipline is a thing not known on this vessel, every man knows his place; there are no liberties taken, and contentment prevails throughout. The members of the crew are strictly religious, and on every Sunday, as well as feast days, services are held on board under the direction of their venerable captain. The cabin is an ordinary one but directly aft is bulk-headed off a place that is used only for holding these services. Chock aft is erected a handsome altar and upon this altar burn continually four huge wax candles. The lights have never been out in the entire nineteen years that the America has been afloat. On entering the cabin the altar is visible, but the entrance of a stranger is strictly prohibited.

Some people might imagine that the following named firm was slightly handicapped by having too much name, besides, it might sound as it sorter looks, somewhat profane, it is liable to leave sailors with a kink in their tongue. This is it: "Dampfschiffsgesellschaft Hamburg" (Hamburg Steamship Co.) We are not much scared at tackling it because we have seen and heard of it before, but admit that there is a buccaneering twang to it even in cold type.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD by George F. Stone, Secretary Chicago Board of Trade, October 10, 1896:

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Albany	.....	40,000	75,000	.....	.....
Baltimore	941,000	1,064 000	925,000	140.000	.....
Boston	1,342,000	306 000	138 000	.....	.....
Buffalo	2,261.000	364,000	205,000	107,000	387,000
" afloat	.....	.....	.....	.....	.....
Chicago	14 614.000	6,685.000	2,319,000	548.000	356.000
" afloat	.....	.....	.....	.....	.....
Cincinnati	1,000	2 000	13,000	1 000	32,000
Detroit	533,000	.....	58,000	42,000	.....
" afloat	.....	.....	.....	.....	.....
Duluth and Superior	5,533.000	10,000	230,000	253,000	524,000
" " afloat	.....	.....	.....	.....	.....
Indianapolis	267.000	22.000	.....	.....	.....
Kansas City	590,000	9,000	94,000	3,000	.....
Milwaukee	432,000	71,000	1.000	136 000	126,000
" afloat	.....	.....	.....	.....	.....
Minneapolis	13 545 000	11 000	164.000	6 000	12,000
Montreal	512.000	26.000	279,000	10,000	43,000
New York	4,627.000	2,669 000	2 253,000	335,000	122,000
" afloat	128 000	.....	105 000	25,000	80,000
Oswego	28,000	32,000	.....	.....	20,000
Peoria	205.000	123 000	488.000	12.000	3,000
Philadelphia	493 000	812.000	92 000	.....	.....
St. Louis	3,420,000	134,000	182.000	15.000	.....
" afloat	.....	.....	79,000	.....	.....
Toledo	782,000	20,000	391,000	64.000	.....
" afloat	.....	.....	.....	.....	.....
Toronto	164.000	.....	64.000	.....	28,000
On Canal	712,000	17.000	787.000	189,000	471.000
On Lakes	1.264 000	1,904,000	555.000	143,000	716,000
On Mississippi	40,000	147,000	36.000	.....	.....
Grand Total	52.434.000	14,468,000	9,533,000	2,031,000	2,920,000
Corresponding date 1895	44,481,000	5,375 000	4,029 000	760,000	3,026.000

THE STEAMBOAT WHICH WAS TO HAVE REVOLUTIONIZED OCEAN TRAVEL.

The steamer Howard Cassard, described and illustrated in these columns in 1888, was sold recently in Baltimore at auction for $1,000. This is the somewhat ignominious end of an enterprise that was once greatly exploited. For a long while the steamer lay at the wharf in Alexandria, and her designer and builder, Robert M. Fryer, promised that Alexandria was to become a great shipbuilding point. He and others busied themselves in an effort to organize a great stock company to undertake the business of constructing ships on a new model which would be able to make the passage across the Atlantic in four days. The Howard Cassard was constructed as a sample of the new vessels, but never proved a success.

The Cassard was built in Baltimore on lines that were claimed by the inventor, Fryer, to be entirely original in ship construction which it certainly was. The steamer was launched November 6, 1890, from what were then Ramsey's machine shops. A great crowd gathered to see the launch, among whom were several officers of the United States navy. As the steamer moved the ways spread and bags of coal ballast shifted and the vessel took the water on her side. The Cassard is remarkable for her narrowness, being 220 feet long and 16 feet extreme depth amidships, and draws eight feet forward and ten feet aft. Mr. Fryer said that thirty-five miles an hour would be easily reached, but no trial trip of the vessel ever developed more than a fourth of that speed. The basis of the structure is a keel that weighs 68,000 pounds. It is made of a series of plates laminated, and as homogeneous as though solid. This keel runs from nothing at the bow to a depth of twenty-five inches outside of the hull, at the stern, and comes up through the hull a sufficient distance to form the backbone of the ship—the frames, the bed-plates for the engines, boilers, condensers and all heavy weights in the ship—and all of which are placed directly upon this rigid keel.

The shaft is 92 feet long and 10½ inches in diameter, with a four-bladed screw, 9 feet, 8 inches in diameter.

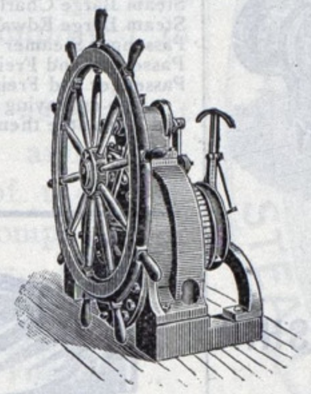
It is said that more than $125,000 was sunk in the building of the vessel, trial trips and experiments with new and different machinery.

The Cassard came to public notice again last winter by being towed to Newport News, Va., where it was understood, after some changes, if her speed developed she would be bought by the Cuban revolutionists. This failed and she started for Baltimore, Md., but before reaching that port an accident occurred, and she had to be towed to her present anchorage. She now is known as Fryer's folly in which the bright ducats of many hundreds of sanguine investors lay rusting.

The Hydrographic Office has just issued a large accurate and handsome chart of Cleveland's inner and outer harbor, and the adjacent portion of Lake Erie, containing the results of the very thorough survey made last season by the U. S. S. Michigan. The soundings are given up the Cuyahoga River as far as Jefferson street bridge, and up the old river bed to its head. The chart measures about 30 x 40 inches. Price $1.25, at MARINE RECORD offices, Fourth Floor, Western Reserve Bldg.

PROPOSALS.

U. S. ENGINEER OFFICE, Duluth, Minn., Sept. 20, 1896. Sealed proposals for rip rap embankment at Agate Bay (Two Harbors), Minn., will be received until noon, Oct. 20, 1896, and then publicly opened. Information given on application. CLINTON B. SEARS, Maj. Engrs. 39–42



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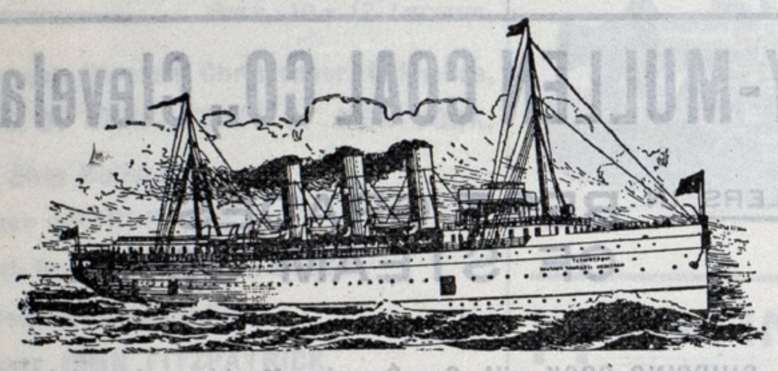

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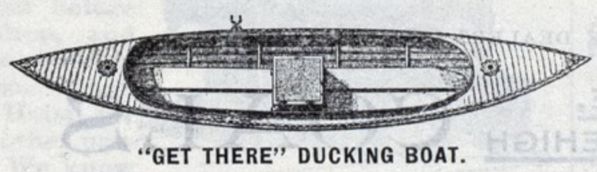

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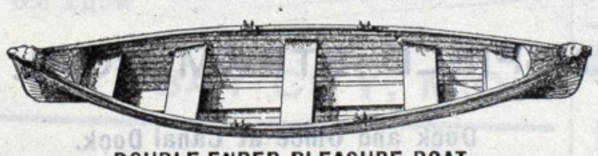

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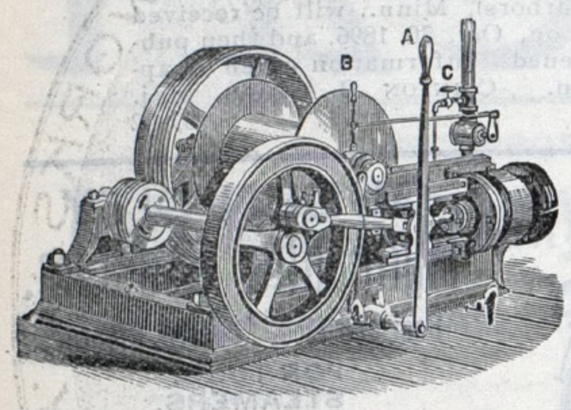

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Passenger Steamer Pilgrim, St. Clair, 14 and 28x20.
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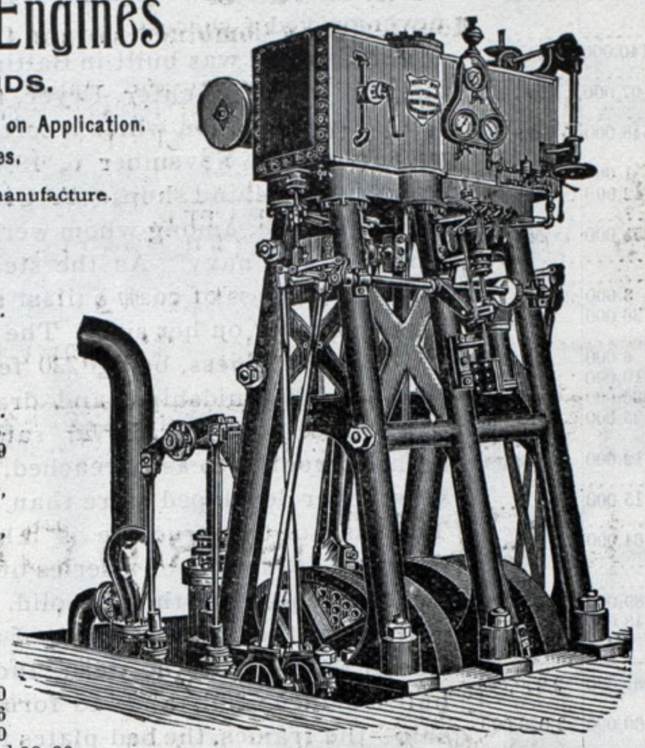

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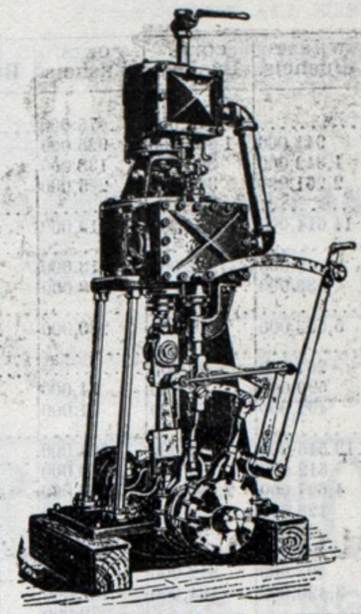

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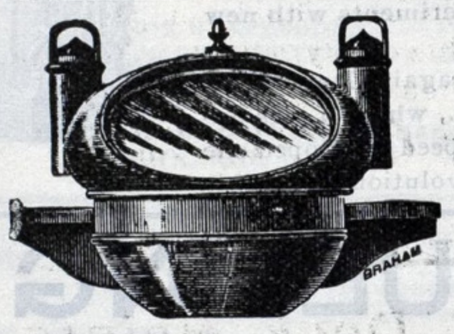

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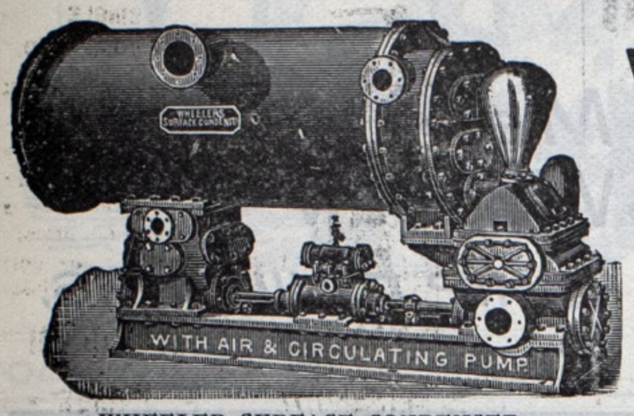

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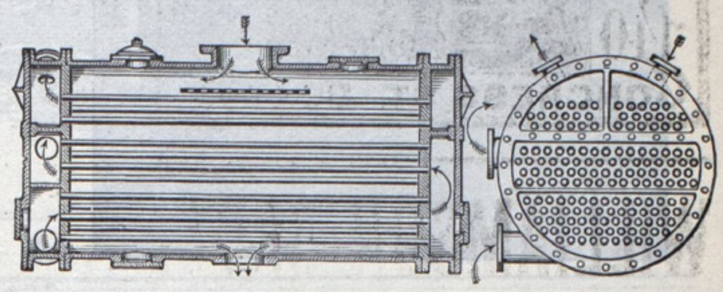

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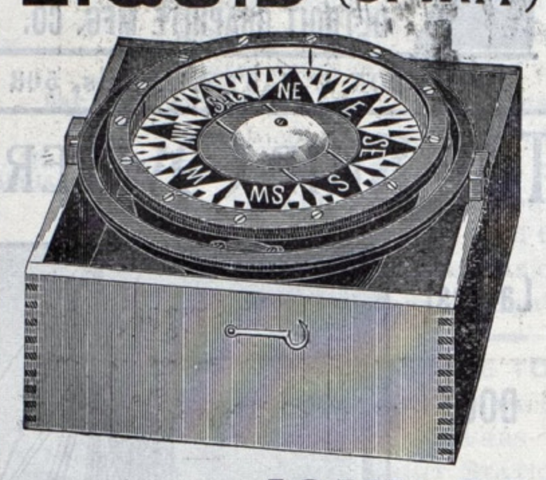

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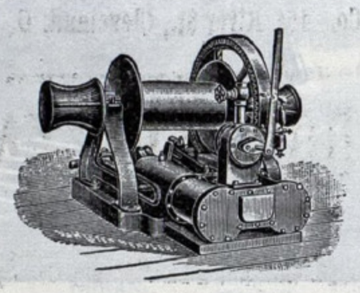

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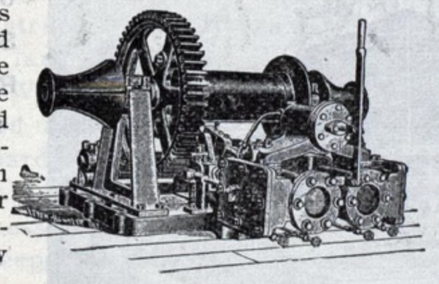

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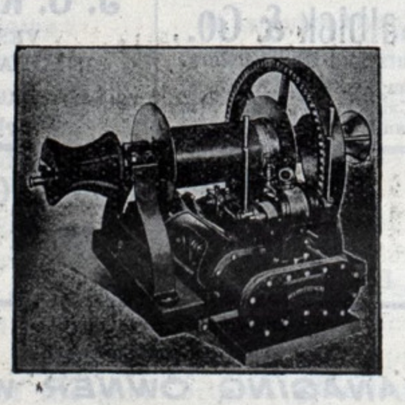

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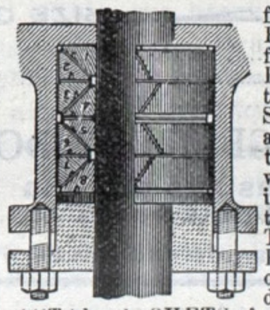

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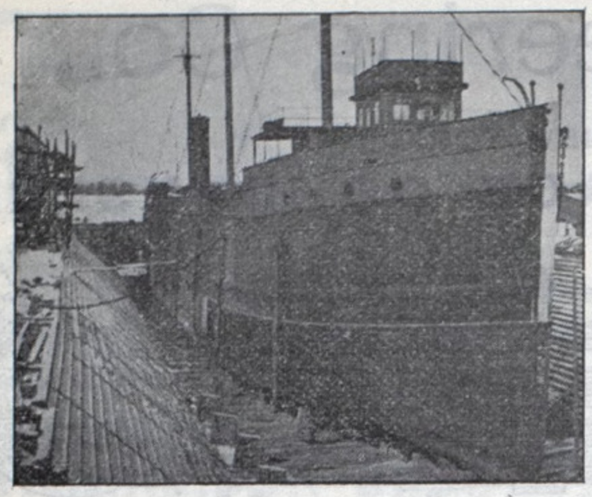

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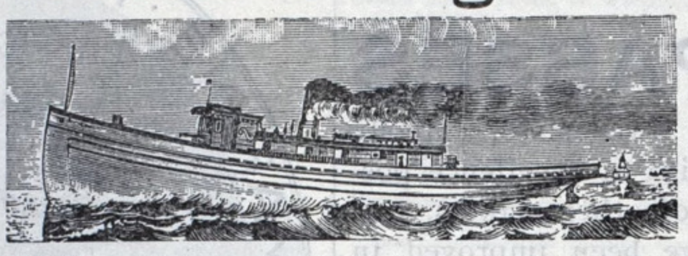

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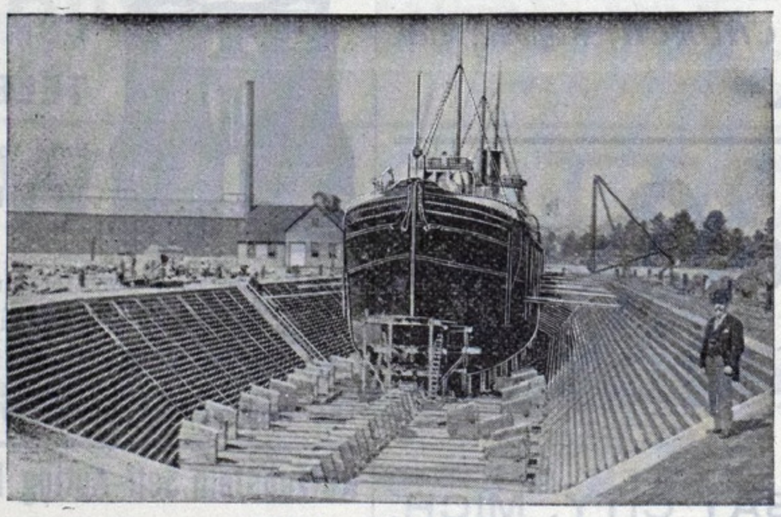

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Breadth, Bottom	52 "	Depth over Sills	18 "

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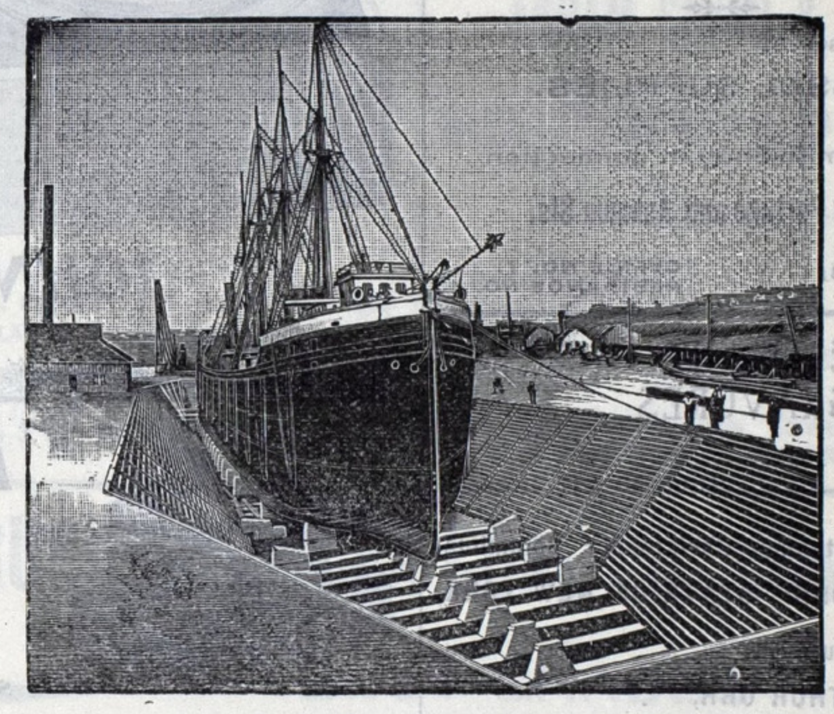

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